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THE RAILROAD MAN'S MAGAZINE

JUNE

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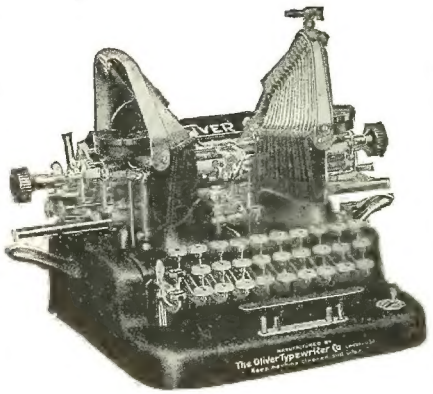

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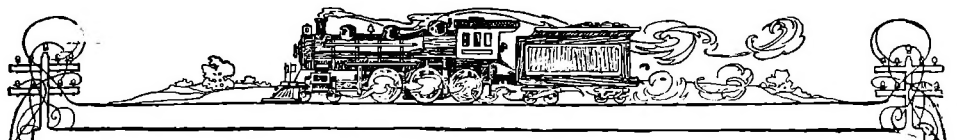

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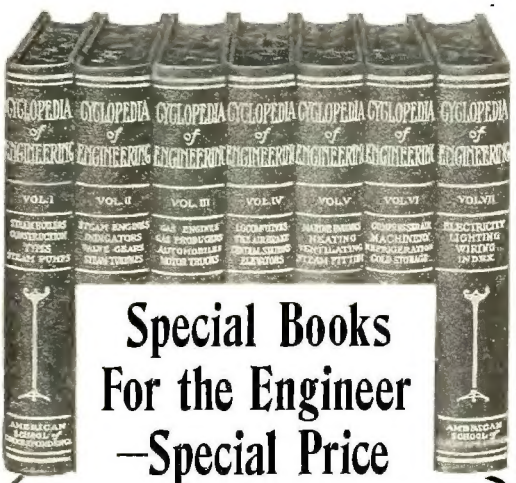

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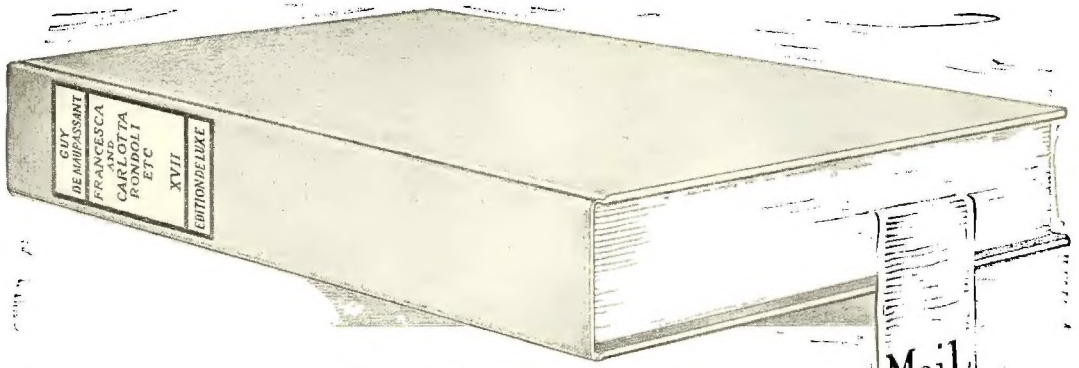

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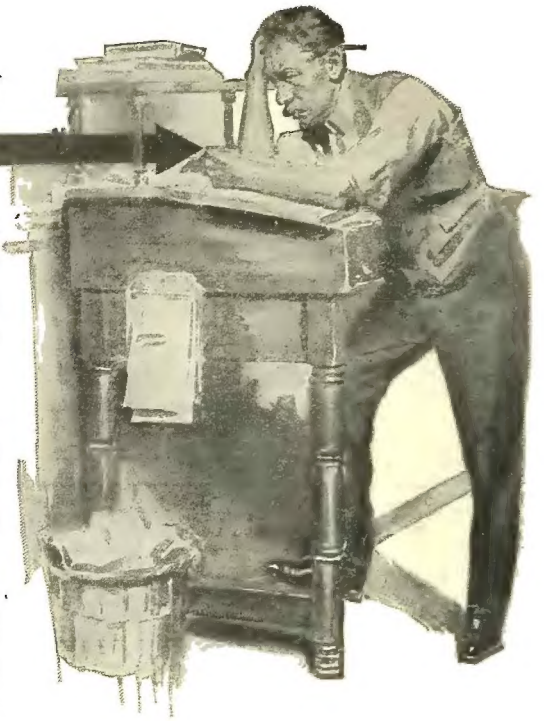

Then you're too old, too set in your ways—perhaps too discouraged to profit by your experience.

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At 40 you realize that, by doing the same old thing year after year, you can *earn* your salary but not *raise* it.

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Now is the time to decide what you want to be at 40. *Now* you are either fencing yourself into a narrow field where you will find yourself still at 40, or you are breaking down the barriers and providing limitless possibilities for your future. The things you *can't* do, are your barriers. It is easy to overcome them if you are ambitious.

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AMERICAN SCHOOL of CORRESPONDENCE
CHICAGO, U. S. A.

THE RAILROAD MAN'S MAGAZINE

Vol. XII. JUNE, 1910. No. 1.

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

BOYS, here is the first article in the new series by Gilson Willets, who is now on his fourth annual tour over the railroads of the country for THE RAILROAD MAN'S MAGAZINE. You know what he has given us in the past. We guarantee that this new crop will not be a failure.

The first of the series comes from Dixie—the sunny Southland—where the life of the railroad man is just as strenuous as in the northern climes. There is, of course, a common similarity in all railroad yarns, but there is no railroad yarn without its gripping, blood-tingling quality.

These from the Southland have, besides, the real Dixie-land flavor.

No. 1.—THE DRAMAS OF DIXIE LAND.

The Missing $43.70—Saving the Commander—"Red" Bourbon's Mistake—An Ancient Ticket—Bob Weaver's Little Protégé—The Face in the Window.

THE lone night-operator at the little Norfolk and Western station at Elkton, Virginia, opened his cash-drawer, counted the money, and entered the sum in a cash-book. The amount that he recorded was $43.70.

He was hardly more than a boy.

He looked at the clock. "Nearly eight," he murmured. "Nell should be here now."

Then he took a letter from his pocket, and read: "Unless you pay this bill by January 19, we will garnishee your wages, now in the hands of the Norfolk and Western."

The operator looked at his calendar. The date was January 18, 1910.

Just then the station door opened, and in came the girl.

"So glad you've dropped in, Nell," said the operator. "I've something for you." On the girl's finger he slipped a silver ring, representing a snake with an imitation emerald for an eye.

The girl said: "Is this an engagement-ring, Harry? A real one?"

"No. I will get you a real one some day in the near future."

"How soon?"

"Oh, pretty soon."

The girl departed, and the operator lighted a cigarette and puffed nervously. Ten o'clock came, and eleven and twelve and one. His key had ceased to click. There would be no more trains till 2.20, when No. 83. freight, would pass. The operator settled down to read "The Railroad Robber's Revenge."

Here ends the first act of this particular melodrama of the Dixie rails. Now for the second act.

That same morning, at 2.30, the men in the despatcher's office in the headquarters building of the Norfolk and Western at Roanoke were working and yawning at the same time, bored by the eternal round of the usual.

Of a sudden, however, the unusual happened — and the chief operator let loose a laugh that went through the open window, and was heard by the watchman up in the "crow's-nest," or signal-tower, that was hung up on the foot-bridge over the network of tracks that ran by the headquarters building.

"Listen to this," cried the chief operator to the other boys. "It's from Dave Chester, conductor of No. 83. He wires: 'Train delayed; untying operator.'"

The boys laughed uproariously.

"What station?" one asked.

"Elkton."

This ends the second act. Now for the third.

The Retired Officer Talks.

It was my first morning in Roanoke—January 19, 1910. On my arrival the night before, it took only five minutes to discover that every third man in Roanoke was a railroader; that the Norfolk and Western had a monthly pay-roll of over $200,000; that the N. and W. shops extended for two miles down the tracks; that the N. and W. owned about everything in sight, including the hotel in which I was staying; that the hotel was filled with officers of the N. and W., and with traveling men who wanted to sell things to the N. and W.; and that railroad stories would begin coming my way the moment I turned myself loose.

At breakfast that first morning, in the hotel dining-room, I found myself at the table with General Passenger Agent Bevill, two officers of the supply department, two travelers who wanted to sell things to the supply department, and a retired N. and W. officer.

When all had left the table, save the retired officer and myself, he suddenly said:

"Did you happen to be awake about 2.30 last night, suh?"

"No. Why?"

"Well, if you had, suh, you would have heard a mighty powerful heap of laughter going on across the way in the despatcher's office. You see, they received a despatch from a freight-train conductor, Dave Chester, from down at Elkton on the Shenandoah division, saying: 'Train delayed; untying operator.'"

"What's the joke?" I asked.

'Twas no Joke.

"'Tain't no joke, suh. That conductor wasn't jokin'. The operator, suh, was really tied, and he really had to be untied. For about ten minutes the whole thing was a mighty powerful, deep, dark mystery — to the despatchers across the street here.

"Then, in came details. No. 83, freight, it seems, was crawlin' up to Elkton station on time at 2.20 this morning. The engineer was expecting to go past the station without stopping, as usual, for there is seldom anything to stop for at that little place. But what did the engineer find? He found the semaphore set against him. So he stopped, then he and Conductor Chester went into the station to see what was up."

Here the retired railroader stopped to pour a lot of maple-sugar over his cornpone, and in impatience I asked:

"Well, what did they find?"

"In the station, suh, they found the operator tied with rope to the semaphore-levers and a mail-bag over his head, suh."

"Robbers?"

"Yes, suh. Two of 'em, with guns. They got the drop on the operator about one o'clock in the morning, shoved the mail-bag over his head, and tied him to the semaphore-levers. Then they broke open the cash-drawer, rifled it, and got

away. The operator lay there tied like that for an hour and a half. Conductor Chester untied him, and then resumed his run. And there you are, suh."

"Did the robbers get much money?"

"Forty-three dollars and seventy cents, suh. But Joe Funk is already on the job. He'll get those robbers in no time."

"Who's Joe Funk? A detective."

"Yes. One of Bill Baldwin's lieutenants. You've heard of Bill Baldwin, haven't you?"

Joe Funk on the Job.

"Yes. He's the Norfolk and Western's chief sleuth, and one of the most famous railroad detectives in the South."

"Right you are, suh. And his lieutenant, Joe Funk, is not a man to fall down on a little job like this. You may look for Joe Funk nabbin' those Elkton Station robbers in about twelve hours from now. I tell you that. Mornin', suh."

So ended the third act. Now for the fourth.

Joe Funk appeared suddenly in Elkton. To several and sundry of the village he put this question: "Did you see any strangers hereabouts last night?"

The answer was invariably a negative.

Joe Funk visited the station, looked sharply at the operator when the operator was not looking at Funk. And Funk made this mental note: "Operator's eyes close together. Can keep a secret."

Then he looked carefully around the station, finally making these further mental notes: "Operator a cigarette fiend, and reads dime-novels such as 'The Railroad Robber's Revenge.' And there's a girl named Nell."

Ten days passed, and not a sign of Joe Funk in Elkton in all that time. The operator continued on his job. If any clue to the identity of the robbers had been found, it had not been made known to any one.

Suddenly, however, on the morning of February 1, 1910, Joe Funk loomed up at the Elkton Station and conversed with the operator something like this:

At the Bottom.

"You've been buying things on credit —trinkets and such things—at Martinsville and Rocky Mount. Your creditors threaten to garnishee your wages. You owe a lot of money. Now, my boy, if you should pay forty-three dollars and seventy cents on account, it would ease you up a whole lot, wouldn't it?"

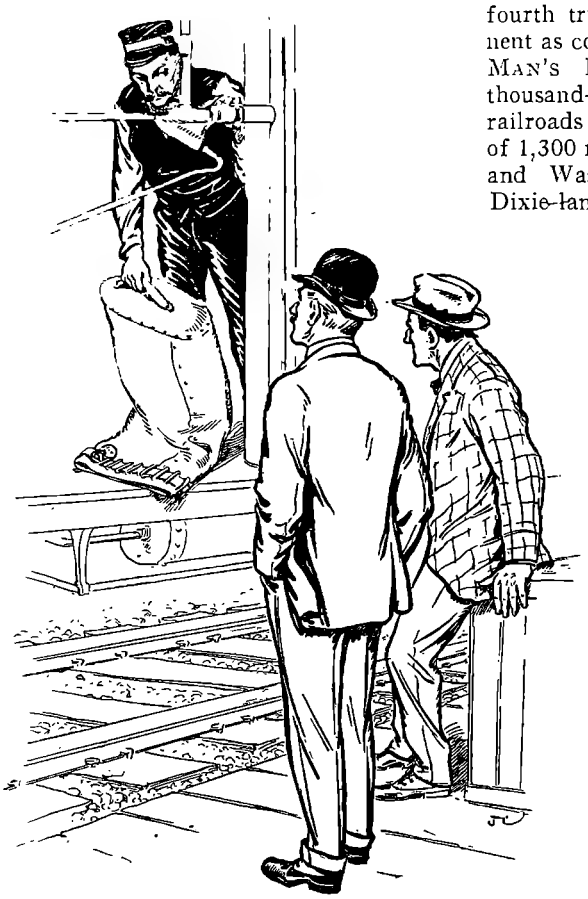
The young operator looked at the detective a moment with an inscrutable smile, then said:

"Yes, it would."

"Well, then, son, pay me that forty-three-seventy and get eased up."

This ends the fourth act. Now for the fifth and last.

"IS THIS AN ENGAGEMENT RING, HARRY?"



"DID YOU SEE A MAN DROP A LETTER IN YOUR CAR, YESTERDAY?"

That same night, at dinner, I sat in the hotel dining-room at Roanoke, when the retired N. and W. officer joined me, saying:

"Joe Funk is back, suh."

"Back from where?" I asked. "Oh," I added, "that Elkton-operator-tied-to-semaphore case?"

"Yes, suh. It's a closed incident now. You see, there were no robbers. The operator put the mail-bag over his head with his own hands and tied himself to the semaphore-levers. And Joe is back with the operator's written confession and the forty-three-seventy in cash. And there are four reasons for that operator's fall, suh—just four. They are cigarettes, dime-novels, debts, and girl."

I should add here, parenthetically, that Roanoke was my fifth stop on my fourth trip across and around the continent as correspondent for THE RAILROAD MAN'S MAGAZINE. My present ten-thousand-mile-story-gathering tour of the railroads began with a southward flight of 1,300 miles to Philadelphia, Baltimore, and Washington, and thence through Dixie-land. That flight included thirteen stops. At these stopping-places the railroad boys kindly contributed to my note-books the dramas, melodramas, and comedy-dramas here related. For the sake of "law and order," I will relate these yarns in the geographical sequence in which they were told to me in my progress from New York to New Orleans.

At ten o'clock on a very hot morning in July, 1909, a taxi-cab pulled up in front of the Broad Street Station, Philadelphia, at the entrance where the sign read: "General Offices, Pennsylvania Railroad."

The passenger who alighted and, with a wave of his hand, returned the "Good morning" of the doorman, was a commander of men, although he didn't look his sixty years.

He carried two yards of height straight as a signal-post, and two hundred weight of bone and flesh with the grace of an athlete. In the corridor, while waiting for the elevator, he took off his straw hat and with it fanned himself. He had plenty of hair which, like his square-trimmed beard, was tinged with gray.

At the first floor he left the elevator and entered an office the door of which was lettered:

PRESIDENT.

Now, the commander described was too fine a man to perish by an assassin's hand, if it could be helped. At least, so thought the young man who now entered the president's office and stepped up to the great man's desk to say:

"Mr. McCrea, here's a letter needing the immediate attention of a detective."

"Good morning, Derousse," returned the commander. "What's this? Why do you look so excited?"

Oswald Derousse was chief clerk to the president.

"It's addressed to you personally, sir," Derousse said; "and the writer swears he will blow the president of the Pennsylvania Railroad into kingdom come unless $45,000 is forthcoming as ransom for your safety. He says he'll even go so far as to blow up Broad Street Station in order to get you."

"Anonymous?" snapped Mr. McCrea.

The Cool McCrea.

"Yes, sir. The writer says that, by way of answer, we must insert a personal in the Richmond *Times-Despatch*, using a masonic sign for the purpose."

Mr. McCrea took the letter and read:

> This is a declaration of war. My life is openly staked on the result. I shall use dynamite.

Without reading further, he handed it to Derousse, saying:

"What postmark?"

"Burkeville, Virginia."

"On the Norfolk and Western?"

"Yes, sir."

"All right." He gave two short, incisive orders.

A few hours later, the gateman at track nine, at the Broad Street Station, closed the gate as the train on that track began pulling out for the South. Just then a small man with a big head, a bronzed face, and eyes like a hawk rushed up to the gateman and showed a badge. The gateman immediately reopened the gate, and the small man dashed through it, ran down the platform, and leaped aboard the rear car of the outgoing south-bound train.

"Bill," said the gateman to the attendant at the adjoining gate, "if that man was not Captain Bill Baldwin, it was his double."

Captain Bill Baldwin, if the man who caught that south-bound train were indeed he, was small, as I have said. He had a big name as a railroad detective, and possessed a trigger finger much disliked by bad men in the South.

He was the head of the Baldwin Detective Agency, with headquarters at Roanoke, Virginia; and was, moreover, the chief of the secret service of the Norfolk and Western Railway.

Closing In.

I repeat, if the small man who flew through the gate was indeed Bill Baldwin, then it was a fortuitous circumstance that he happened to be in Philadelphia that day when the threatening letter reached President McCrea's office.

At Richmond, that same day, Post-office Inspector Bill Calvert received a telegram which caused him to secure a copy of the Richmond *Times-Despatch* the following morning and mark a certain personal with a blue pencil. The personal contained a sign of a secret order.

At Burkeville, Virginia, two days later, two small men interviewed a certain railway mail-clerk.

"Did you see a man drop a letter in your car yesterday?" the mail-clerk was asked.

"Yep."

"You knew him?"

"You bet!" He named a man high up in Burkeville.

"What!" exclaimed one of the interviewers. "Not that man! You are sure?"

"Positive."

Twelve hours later, one of the two small men said to the other:

"He's crazy."

"Not at all," said the other. "He's perfectly sane. He thinks he has a grievance against the Pennsy. His father owned some stock in a branch railroad down here which was reorganized through Pennsy influence. The man who mailed that letter fancies his father lost $45,000 as the result of the reorganization. No, it is not insanity. It's spite."

The Meeting.

A few days later the man high up in Burkeville received a letter from Derousse, chief clerk to the president of the Pennsy, saying that his superior acceded to the demand for $150 cash, and transportation to Philadelphia.

Next day, Derousse received a letter

dated at Philadelphia in which the writer said he would meet Derousse at noon at the Broad Street Station, "ready for business." At noon, accordingly, a man stepped up to Derousse and said:

"I'm the man you expect. Are you ready for me?"

"Yes," promptly returned Derousse. "Come right over to the bank."

The chief clerk led the stranger to the Third National Bank, where he secured a certified check for $30,000 and proffered it to the stranger, saying that the railroad felt that $45,000 was exorbitant, but that it would stand for $30,000.

"No, I won't take that," protested the stranger. "You hold on to that money a while, however, till I make up my mind whether to let you off so easy."

But just then a pair of handcuffs were clamped on the stranger—by a post-office inspector, who said:

"Your honor is under arrest for sending threatening letters through the mail."

Derousse hastened to the office of the commander in chief of the P. R. R., and said:

"Mr. McCrea, you are safe from dynamite for some time to come."

"Who was the man?" the president asked.

"The mayor of Burkeville, Virginia, sir."

Detective Bill Baldwin and Post-Office Inspector Bill Calvert adjourned to the nearest drug-store and ordered two ice-cream sodas.

A Certain Pay-Train.

A Baltimore and Ohio train, on a certain night in September, 1864, pulled out of Washington, bound for some place west of Harper's Ferry, where a number of Federal regiments were mobilized. The train was carrying money to those troops. It was, indeed, a government pay-train, consisting of the pay-car and one coach drawn by the locomotive "Henry Clay." On board was a train-crew of seven men, including Breen, the engineer, also four government officers. They were armed to the teeth.

Toward midnight, with right-of-way over everything, the train was flying through one of the longest tunnels in the Alleghanies some forty or fifty miles west of Harper's Ferry when, suddenly, Engineer Breen desperately signaled: "Down brakes!" The brakemen now nearly tore their arms out by the roots in twisting the brake-wheels.

The moment the train stopped every man aboard jumped off, each carrying either a Winchester or a revolver. Up head, Engineer Breen was seen talking to a young girl who carried a lantern and was gesticulating wildly.

"Come here quick, you fellows," shouted Breen, "and hear what this girl is telling me! There is a plot afoot to wreck us! The switch at the signal-shack at the other end of this tunnel has been set to derail us, and all of us not killed in the mix-up were to be murdered like dogs. The plan of the wreckers was to get the money we're carrying!"

The girl then rapidly outlined her terrible experiences of the night.

The Missing Operator.

She said she was Jennie Garth, of Harper's Ferry, a sister of Harry Garth, the signal and switch tender, who lived in the shack at the west end of the tunnel. She had come down by rail that day from Harper's Ferry to see her brother. Arriving at the shack, she found that he was not at his post.

Night fell, and Jennie waited for her brother. Ten o'clock came, and—still no Harry.

Meantime, Jennie resolved to flag the first train that came along and report her brother's absence, feeling certain that some ill-fortune had befallen him.

Of a sudden, she heard quick but stealthy footsteps outside, and a moment later two men, one old and the other young, bounded into the shack and came to a standstill, as if surprised.

"He's not here," the old man said, looking around the only room. He then stepped toward Jennie, a knife gleaming in his hand.

Jennie, frozen with fear, could not utter a word.

"No, dad," interposed the young man. "Remember your promise—no violence here. Leave the girl to me."

With that, the young fellow, who carried a coil of rope, seized Jennie and dragged her to the corner where the bed

stood. It was a four-poster, and to one of the posts he lashed the girl. When the old man went to the door to peer out, the young man whispered:

He Confides.

"Keep still, gal. Don't be frightened. Keep your mouth shut. My father has gone clean crazy. He's going to wreck the pay-train and kill the crew, and steal the money. But I'm going to stop him."

"Come along," ordered the old man, turning to his son.

The son waited till the old man stepped out, then whispered to Jennie:

"Your brother is safe, gal. Don't worry. He fell—up in the hills—and broke his knee-cap. I knew he wasn't here, but I wouldn't tell my old man."

With that the young man left the shack, following his father out into the night, and leaving Jennie so paralyzed with fright that she could hardly keep from sinking down, thus drawing the ropes cruelly tight about her. For half an hour or more she steeled herself against attacks of faintness, and then—the young man reappeared and blew out the lamp.

"I doubled on the old man," he panted. "He's after me, so I must hurry. So must you, gal. My father has spiked the switch, and I can't reset it. The pay-train is coming. You take a lantern, light it after you get far inside the tunnel, and stop that train.

"Meantime, I'll let the old man get on my track again, and while he is running after me you'll have a good chance to save the train."

"HE'S GOING TO WRECK THE PAY-TRAIN, AND KILL THE CREW,"

To Save the Train.

He loosened the rope and Jennie was free.

Out of the door dashed the young man. Jennie, realizing that the lives of the men

on the pay-train were in her hands, summoned courage to obey the instructions given by the young stranger.

Carrying an unlighted lantern, she ran to the tunnel. When she had stumbled over the ties for a quarter of a mile she lighted the lantern—and waited.

Presently the headlight of a locomotive appeared at the far end. Jennie raised her lantern and waved it frantically, and, as I have told, the train stopped.

But even then, with the pay-train saved, the drama of the night was not ended.

Shots Are Fired.

While the train still stood in the tunnel, and just as Jennie finished telling her story to Engineer Breen and the trainmen, and while the government men were forming plans to capture the old rogue, a wild shout was heard in the tunnel, and into the rays of the headlight dashed the young man. Next came a deafening report, and he fell, never to rise again. His father had killed him.

Then, with another blood-curdling shriek, the old maniac rushed into view, with his Winchester leveled at Jennie. At the same time, however, one of the train-crew fired, and down went the homicide. The man who fired the shot that saved Jennie Garth's life was Engineer Breen.

The crew took Jennie aboard, proceeded cautiously to the switch, unspiked it, left a brakeman in charge at the shack, and then went on to their destination.

The next day the pay-train carried Jennie back to Harper's Ferry. She was rewarded by both the B. and O. and the government with sums of money.

The old villain in the drama was a notorious character who, with his son, had lived for years in an almost inaccessible part of the Alleghanies. "Red" Bourbon he was called. His son's name was Jim. Poor Jim Bourbon!

"Old Man" Whitney, sometimes called "Chi" Whitney, an old Baltimore and Ohio railroader of Baltimore, gave me these facts.

The heroine of the story, Jennie Garth, was then only seventeen years of age. "Old Man" Whitney said that when he last heard of her, in 1904, she was still living in Harper's Ferry, a spinster.

Train No. 4, from Pittsburgh, pulled into the station at Washington one morning in November, 1908. The conductor, as he walked up the platform, chanced to meet a fellow-wielder of the ticket-punch, to whom he said:

"Jim, how long is a Penn ticket good for a ride?"

"Till midnight on date of issue, or as otherwise specified in contract printed on said ticket. At the most, thirty days," replied Jim.

"Then a ticket issued in the year of our Lord, 1869, wouldn't carry a passenger very far to-day, would it?"

"Not on your life."

"Well, look here." He handed Jim a ticket.

"Why," exclaimed Jim, "this ticket is thirty-nine years old!"

"Yes," assented the conductor of No. 4, "I've figured that this ticket is about 14,235 days overdue."

"Well, what of it? You didn't carry a passenger on that worthless paper, did you?"

"That's just what I did, Jim. The Penn has smashed its own rule, regarding the time limit on tickets, to smithereens."

At the Broad Street Station, Philadelphia, at nine-fifty-five in the evening, the head boss of the night force in the telegraph department of the Pennsylvania Railroad received a message from Conductor Malloy, of No. 4. The message that was put on the wire at Johnston when Malloy's train, from Pittsburgh to Washington, stopped there, read:

> Passenger has tendered for transportation ticket issued in 1869 by Louisville and Lexington Railroad reading: "Good for one first-class passage from Cincinnati, O., to Washington, D. C." Ticket so worn with age that had much difficulty in deciphering name of railroad. What shall I do? Answer to Johnston. Meanwhile will let the passenger ride.

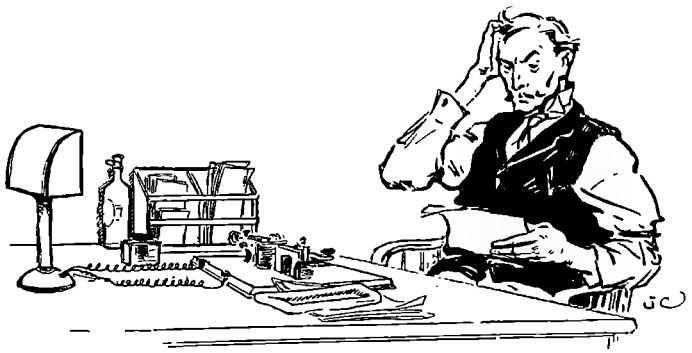
A Puzzling Matter.

The boss telegrapher scratched his head. This plainly was a matter for the passenger department. But the heads of that department never work at night. What should he do? Finally, he went to the telephone and called up General Passenger Agent Boyd at his house, and

to him read the conductor's odd message.

"Why, that ticket is thirty-nine years of age!" exclaimed Mr. Boyd. "However, leave it to me. I'll let you know what to do. Good-by."

Mr. Boyd called up Passenger Traffic Manager Wood and explained all about the thirty-nine-year-old ticket.



THIS WAS A MATTER FOR THE PASSENGER DEPARTMENT.

"But a railroad ticket of that sort is good only up to midnight on date of issue," said the P. T. M.

"Yes, rules is rules," quoth the G. P. A.

"All the same, it ought to go into the museum," said the P. T. M.

"Yes, it should be put in a real nice frame," replied the G. P. A.

"Oh, well, leave it to me," finally said the P. T. M. "I'll let the telegraph man know."

He telephoned Colonel Barksdale, head of the publicity department.

"Leave it to me," said Barksdale to the P. T. M. "I'll let the telegraph man know."

Meantime No. 4, in charge of Conductor Malloy, was flying eastward. The train had left Pittsburgh at 8.33, and was pulling into Johnston at 10.51. Malloy rushed to the telegraph man, saying:

"Got a special message for me from Broad Street?"

"Nope."

"Good Heavens!" cried Malloy. "And that old man riding free! All aboard!" he shouted; and then, in a lower tone: "Wonder why they don't answer? I've copped the ticket, anyway. It's the whole class. Don't dare punch it. I just can't let go of that ticket, yet I dare not let that passenger go on riding without orders. All aboard!"

"Here!" called the telegraph man. "Here's your answer."

Malloy simply devoured that message with his eyes. All it said was:

Honor the ticket.

BARKSDALE.

"Barksdale!" said Malloy to one of the brakemen as the train sped on. "What's *he* got to do with it? I know. He'll get the story in the newspapers. Barksdale certainly is on his job night and day."

Believed in Education.

Bob Weaver, engineer of the Southern Railway, with a run in the "Land of the Sky," where the road drops south from Lynchburg, Virginia, and then up and over the stupendous Black Mountains and past Asheville, North Carolina, had a hobby.

It was education. He believed education to be a panacea for all the ills of all the "poor whites," mountaineers, hillbillies, moonshiners, and blockade-runners on his division.

Here is an example of how he would give his hobby exercise:

One day in the spring of 1905 he was running his train, the Southern Express, through a notch in the mountains north of Asheville, where the road-bed winds along the side of the mountain a thousand feet above the valley.

He found a signal set against him, and was obliged to halt. He had to stop there fully two hours, during which time a number of the mountaineers and their families came down to the track to stare at the passengers seated at the windows. Among these was a young girl to whom Bob Weaver said;

"What's your name, gal?"

"Nan Gibson."

"How old?"

"Fourteen."

"Go to school?"

"No, sir. Ain't no school yereabouts to go to."

"Who's the kids with you?"

"Them's mah little brothers and sisters."

"Father living?"

"Yes."

"Mother?"

"No. She's daid."

"And so you have to stay home and mother the family—is that it?"

"Yes, sir."

"Well, by hooky! It's wrong; all wrong. You should have an education. You'd know then how to take care of these kids all the better. You'd do your work easier-like. My name is Bob Weaver. But if I'd been named Andrew Carnegie, I'd turn you into an island, Nan, entirely surrounded with books. Good-by, Nan."

After that, every time Bob Weaver ran down through that notch way up in the air, with the mountain towering on one side and a sheer precipice of a thousand feet on the other, he would think of Nan Gibson with protesting thoughts against the fate that left her without an education.

Fine Place for a Wreck.

"And wouldn't this spot be a place for a wreck!" Bob Weaver said one day to his fireman, as the train ran down through the notch.

"Guess yes," answered the fireman.

Then came a day in April, 1905—some weeks after the meeting of Bob Weaver and Nan Gibson—when the Southern Express, at 11.30 in the morning, was thundering and grinding down the mountain, and Bob Weaver gave a yell of alarm and jammed on the emergency.

On the track ahead stood a girl, waving something red.

"It's that gal Nan Gibson," shouted Weaver, as his train came to a standstill. "And, by Heaven, look there ahead!" he continued. "A rock slide! A billion tons of rock and earth on the right-of-way."

Comprehending now the full significance of the presence of Nan and the red thing she had waved, and which proved to be her petticoat, Bob Weaver sprang from his cab and ran to the girl, followed by his fireman and the train-crew and every man, woman, and child from the coaches and Pullmans.

How It Happened.

"You're an angel from heaven!" cried Weaver, seizing the girl and lifting her in his arms, and holding her up so all the crew and passengers could take a look at her.

"But for this gal," he shouted, "we'd probably all be lyin' a thousand feet below here, in the stream through the gorge, without further use for the Southern Railway."

The moment Weaver placed the girl on the ground, the women passengers swarmed around her. They hugged her and kissed her, and wept on her neck, and thanked her and blessed her.

"How'd it happen, Nan?" Bob Weaver asked.

"Ah was peelin' the 'tatoes fo' dinner," she said, "when Ah heard a awful noise like the mountain was crackin' open. Ah looked out of the do' and saw part of the mountain—rocks, trees, and all—slidin' down onto the railroad track; and I says to myself: 'An' it's train-time, too.' We ain't got no clock or watch into our house, but Ah knew by the sun that it was near time for this yere train. So Ah runs down yere and takes off mah skirt and flags you. That's all."

The passengers had taken up a collection. They handed Nan a hatful of money.

"The money ain't no good to her without education," murmured Bob Weaver. Then he took Nan aside and said to her:

"Listen to your Uncle Bob, gal. You remember what I tell you. This contribution is merely from the passengers as an expression of gratitude for savin' us-all from a wreck. But pretty soon a man from the Southern Railway will come down here to see you—'cause my road ain't no slouch to forget to reward an act like yours.

Gave It to Dad.

"Now, when that man from my road comes here, Nan, you tell him that what you want is an education. Will you re-

member, gal? Get that word on the brain —education. And leave your Uncle Bob to do the rest."

The wrecking outfit came and cleared away the "billion" tons of rock and trees and earth, and rebuilt the track.

Nan Gibson gave the hatful of money to her father, who promptly went down into the valley and bought a little cottage, and took Nan and the kids down there—and everybody was happy. Nan pronounced the word "education" every day—but still day after day passed, and no one from the Southern Railway put in an appearance.

In June, however — about five weeks after the greatest day in Nan's life—the "man from the Southern Railway" showed up.

He was a kind, soft-voiced man, and to Nan's father he said:

"My road wishes to reward your daughter for averting what might have been a terrible disaster—up there in the notch. We want to make the reward not only substantial, but permanent. Our engineer, Robert Weaver, in charge of the train which your daughter saved, has suggested to the company that we pay for your daughter's education at a seminary."

"Nan, want a education?" the father asked, turning to his daughter.

"Education—that's the word," responded Nan.

At the opening of the fall term of 1905, at the Normal Collegiate Institute, at Asheville, North Carolina, the girls poured in from all parts of the South, and one of them signed this name on the register:

"Nana Gibson."

The Southern Railway paid the bills.

And every time Bob Weaver drove the Southern Express through Asheville he would chuckle.

"EDUCATION—THAT'S THE WORD," RESPONDED NAN.

His Lonesome Night.

On the train that carried me from Roanoke to Natural Bridge I repeated the story of the operator who tied himself to the semaphore-rods to a young man to whom I was introduced by Conductor Kirby. His name is Robert Hanson. He is an itinerant railroad telegrapher; and my story brought out this one from my new friend. He said it would "go mine one better."

"The hero," said Hanson, "was a friend of mine, and I remember the details as if it were yesterday.

"At eleven o'clock on the night of December 31, 1907, Ed Hutchison, agent-operator for the B. and O. at Clarington, West Virginia, some twenty miles south of Wheeling, put some more coal in the stove, raked the fire down, and then watched the stove grow red in the face. A biting wind was sweeping down

"HE SAW A FACE PRESSED TO THE PANES."

from the hill, and plenty of fuel was needed to keep the station warm. Ed Hutchison then responded to the click of his key for a while, wrote out some reports, then paced up and down the office, stopping now and then to peer out into the night.

"He was lonesome. It was New Year's Eve, and he knew that many of the young folks of the town were assembling to watch the old year out and the new year in—a social occasion from which he was barred by duty. As he once again paced toward the window he saw a face pressed to the panes. It was a man's face, and it was bearded. Suddenly it vanished.

"He rushed to the door and flew out to the platform. No one was in sight.

Was It a Hill-Billy?

"'Queer,' he muttered, returning to the warmth of his office. 'Was that an apparition, or was it really the face of the hill-billy and moonshiner known as "Stale Bread" Carney? Wonder what he's up to, loitering around here at this hour of the night?'

"He dismissed from his mind the face he had seen at the window, and thought of another—a much lovelier face—the face of Bess Delisle, one of the prettiest girls in the town.

"Ed Hutchison was only twenty—and with all the ardor of his youth he wished he might attend the 'watch-night party' that Bess Delisle was holding at her house.

"The door flew open, and in bounded three men, one of them covering Ed with a revolver. The men had bandannas over their faces. One, whose beard was not fully covered by the handkerchief, said to the operator:

"'Open that safe, or you're a dead one!'

"Ed had been edging toward the drawer in which lay his gun.

"'None o' that!' commanded the man with the betraying beard. 'Step the other way—and open that safe!'

"What could a boy of twenty do, in the power of three desperadoes, except comply with their demand?

"Ed opened the safe.

The Mask Falls.

"The bearded robber, while one of his pals kept the operator covered, knelt in front of the safe and ransacked it till he found the money. In the course of this performance, however, the handkerchief covering his face fell off. With a quick look he saw, by the expression of the operator's face, that he was recognized.

"'I'll fix you so you can't tell nothin'!' he swore.

"Without bothering to hide his face again, he sprang at the operator and struck him on the head with the butt of his gun, and Ed. Hutchison collapsed.

"The three men kicked over the stove, scattering the live coals over the floor. Then they made their getaway.

"Meantime, up at Bess Delisle's house, a number of young folks were dancing and making merry generally, till suddenly some one announced that the hour of twelve was striking, ushering in 1908. Cow-bells, horns, and whistles combined in a deafening racket. Then a girl's voice was heard crying:

"'Fire! The station's on fire!'

"It was the voice of the sweetheart of the man at the station—Bess Delisle.

"Hastily seizing hats and wraps, the young folks sped out of the house and toward the burning station, with Bess leading.

"'Ed Hutchinson is there all alone!" she cried as she ran along.

"'Hoy-yoy!' yelled the young men of the party as they passed each house on the way, thus arousing the inmates.

"The alarm spread, and by the time the party from Bess's house reached the station, a hundred townspeople had joined them, and all now got to work trying to save the building.

"Buckets were found, water was brought from the tank—but the volunteer fire-fighters could see plainly that the holocaust was beyond control and the station was doomed.

"'But where's Ed?' called Bess Delisle. 'He must be inside the building. Why doesn't he come out?'

"'Yes, where's Ed?' chorused the men of Bess's party. They smashed the door of the wareroom at the farther end of the station. They dashed into the building through the smoke and flame — to emerge, a minute later, carrying the apparently lifeless form of Ed Hutchinson.

"'Ed! My Ed!' called Bess Delisle, bending over the operator as they laid him on the ground. 'Why, he's been hurt!' she added. 'He's bleeding! Look! A gash in his head!'

"Bess dipped her handkerchief into one of the useless buckets of water, and washed the blood from Ed's brow. And as she did so, Ed opened his eyes.

"'Good-by, Bess,' he said. 'I'm going.'

"'No, no!' protested Bess. 'Tell us what happened,' she added.

"Ed Hutchison gaspingly outlined the story of what had befallen him. The men of the party yelled: 'Stale Bread Carney will pay for this! When we find him, we'll lynch him!'

"'The robbers thought, by firing the station,' one young man said, 'that Ed would be cremated, and we would never know what really happened.'

"'Ed! My Ed, don't go away!' sobbed Bess, as the operator finished his story, fell back and grew rigid.

"Five minutes later the biting wind was sweeping down from the hills around and around the living Bess Delisle, who lay on the ground with her lips pressed to those of her dead sweetheart."

In the next issue, Mr. Willets will relate some more of the dramas of Dixie.

GROWTH OF PENSION SCHEMES.

WITH the beginning of the year 1910, 165,000 railroad employees have been added to the 500,000 in this country to whom pension plans already apply. This large increase is due to the action of the New York Central and Rock Island lines, which have announced the installation of pension departments.

Other roads are considering the plan.

The largest government report on the number of railroad employees puts the total for the country at 1,672,074. Of these approximate 665,000 or about 40 per cent serve the roads which have pension systems.

Companies that now bestow pensions on employees are the New York Central, the Rock Island, the Pennsylvania, the Chicago and Northwestern, the Illinois Central, the Santa Fe, the Union Pacific, the Southern Pacific and its affiliated lines, the Lackawanna, and the Baltimore and Ohio, the Atlantic Coast Line, the Reading, the Jersey Central, and the Buffalo, Rochester and Pittsburgh.

A VOICE FROM THE OFFICE.

BY J. EDWARD HUNGERFORD.

WHEN the air turns soft and balmy
And the birds begin to sing,
When the winter old and haggard
Gives the right of way to spring,
When the orchard trees are buddin'
And the grass begins to sprout,
Then I want to go a fishin'
In the brook for speckled trout.

Kinda get that "gappy" feelin',
And just sorter want to shirk
All my duties, for in springtime
It's no fun to be a clerk.
And my gaze goes out the winder,
And my mind goes up the track,
And I kinda wish that traffic
Was a little bit more slack.

Thus I slave from morn till evenin'
'Neath the chieftain's eagle eye;
But them way-bills hold no interest
Makes no difference how I try,
For a ripplin' brook keeps slippin'
'Twixt the paper and my pen,
And I scare the fishes off, but—
They come swimmin' back again.

When the days begin to lengthen
Then I'm haunted by a hook,
And I sit in vain a wishin'
I was fishin' in a brook.
I can see the woods around me,
I can feel the fishes bite,
When a voice says, "Look here, Willum,
This here bill ain't figgered right."

But I'll bet the chief has visions
Of a fish-hole now and then,
For I've seen his eyelids droopin'
And I've seen him drop his pen—
Then he'll sit up kinda jerky,
And he'll peel him off a chew,
And he'll say, "Get busy, Willum,
There's a sight o' work to do."

"THAT STREET-FLUSHING SCHEME WAS THE REAL ARTICLE."

VALHALLA IN THE HILLS.

BY EMMET F. HARTE.

How the Water-Power of the Perfect Town Proved One Too Many for Honk and Horace, Not to Mention the Capitalists.

THE last roll of sod had been laid and soaked with water and the last posy-bed rounded symmetrically at the western terminus of the P. and P., and Honk and yours of the clacking conversation sat gloomily silent in the medicine-house. Our work of parking the stations and beautifying the outlook for the long-necked hordes that travel was done.

Thoughtfully I inserted a record in our old comrade with the battered horn, and pulled the trigger. The tune was peculiarly fitting—it was something that went "Ta-ta, *au revoir*, good-by!"

"Not that!" Honk groaned. "Ho, hum! Not that! Heigh-ho! Ain't we just about the next thing to out of a job at this minute? What's your idea in playing that gruesome thing?"

"Excuse me," I said. "But then I've told you time after time that we were getting this work done too fast. We ought to have made it last a year longer at least. But you wouldn't listen. You're one of these ambitious lads that's got to do it all right at once—"

I paused as a shadow passed the window. "Here comes Sad-eye!" Samuel Dyer Collins, otherwise Sad-eye, was one of the operators at the Union Depot office. He bore tidings addressed to Honk, which same I took and read:

> Simpson, etc., come headquarters; bring car; immediate, important.
>
> DADE.
> Genl. Land and Immigration Agent.

"Hurrah and whoopee!" said Honk, after I read it aloud. "Horace, I told

you something would turn up for us. It never fails. I'm a mascot," and he slapped Sad-eye resoundingly on the back. "Trust to me; I'm It."

"Also something of a liar," I said. "You never told me any such a thing. Just a moment ago you were beefing about us being the next thing to out of a job. Hand back that plug of tobacco I gave you a half-hour ago, too, as soon as you get around to it."

"Horace"—his tone was reproachful—"you're getting more exacting and pettish every day you live." With which he went out to attend to our being attached to first train east.

The trip back over the line was uneventful; as unexciting a four days' journey as you could wish to take. Many points along the line recalled memories, though—Eagle Plume, where little Mack had found the gold-mine, which turned out a false alarm, after all; Blue Butte, where our handiwork still stood an oasis in the surrounding desert, and other points that suggested scenes — comic, tragic, and otherwise. We flitted on, landing at last, with a final screak and jar, in the big terminal-sheds of the Other End.

It was nearly noon when we arrived, so we cooked and annihilated a couple of dollars' worth of *carte-blanche* grub, as our old friend Willard at Rivervale calls short orders; then, at peace with all the world and unafraid, we strolled up to Dade's office in the Burton Building, arm in arm.

The general land and immigration agent was in, and he wasn't near so big as his title. He was one of those little, runty men that walk bow-legged and have bristles on the back of their necks; with a voice that sounded like it needed dressing down on the emery-wheel. But he was loaded for us, and made his talk without any preliminaries other than a peculiar explosive husk-loosening he had.

"B'hum!" he said. "I've heard about you two, and I've seen a bit of your work along the line. It looks good to me. I've prevailed on the company to let me have the benefit of your services for a while in the work of exploiting.

"HURRAH AND WHOOPEE!" SAID HONK.

improving, and colonizing our land holdings out in the Mystic Hills country. B'hum!" He finished with a resounding guttural, and waited, glowering at us like a pug dog with the asthma.

I looked at Honk, and Honk favored me with his regard. Then my old time-tested friend spoke, as was his wont:

"On behalf of Horace here, who is a great hand at the kind of work you mention, but won't admit it, we are yours to command," he said. "Spin on."

"B'hum!" Dade detonated. "All right. The P. and P. owns a million acres or so between the Red River and the Sierras. Some of it's good, and some of it's worse. It's all salable, and we can and will sell it.

"It's pretty dry out there, but we'll have to rustle some water some way. We're willing to spend some money on the project — a lot of money, in fact. B'hum! The soil is—well, you know what it is, you've been to Blue Butte. I know what you fellows did there.

"Ever hear of a town called Arlene? No? It's out there in our tract; quite a town; a mile of brick buildings, opera-house, banks, stores, everything, and not a living soul in the town. Deserted; abandoned—b'hum!"

He waved a hairy hand airily, and continued: "Want you fellows to go out there—it's twenty miles or so from Millardsville, I believe. You can drive over —take a force of men with you, and put Arlene in shipshape. Slick her up, you know, and all that, ready for visitors.

"Then, I'll bring out a train-load or two of investors, and we'll auction off the town, and in the twinkling of an eye have a thriving city. Afterward we will throw open the surrounding country for settlement, induce the land-hungry public to come, and, coming, they will buy, settle, and remain.

"We'll build a spur from the main line to Arlene and—*presto!* The desert blooms as the rose that opens its petals and—b'hum!"

The man's enthusiasm leaped to us like a jump-spark ignition, and all aflame we arose and shook his hand. The scheme looked like simplicity itself.

"But remember," Honk said an hour later, as we prepared to depart, "the town is Arlene no longer. It is Valhalla! Valhalla in the Hills! Horace, we're off in a bunch!"

The trivialities of gathering together a force of men, of shipping supplies—such as paints, wall-paper, whitewash, cement, tools, and foodstuffs, and a thousand other things—we put through with a hurrah. It was dead easy for us; we could certainly spend other people's money with gusto.

One day the whole works swarmed into Arlene — or Valhalla, I should say —and the game began. Did you ever see one of those enchanted cities you read about in the "Arabian Nights," where all the population, from the sparrows in the streets to the hallo girls in the telephone central, had been turned into highly polished black marble? Never did?

Neither did I, but this deserted town of Arlene was about like that same, I guess, except that there wasn't any population at all. The population had been spirited away entirely. But the town was there, all intact, convenient, and complete.

As Dade said, there were brick buildings, well-built streets, sidewalks, block after block of residences, all untenanted. The hitch-racks were there, around the little plaza, and odds and ends, evidences of former activities, such as scraps of paper, tin cans, and cigar-ends in the areaways, were plentiful.

One could imagine that presently a sunburned team of plugs hitched to a rattly buggy would appear around the corner, or somebody would hallo from the open up-stairs window of a building marked "saloon" across on the corner, but no such thing happened. Arlene was a dead one.

"Horace," said Honk to me, "here's where we'll spread ourselves. Here's where we'll build a city that'll make 'em all do the gawk act. I've dreamed of this, but I never thought it would come true." He scanned the near-by hills narrowly and swept the level plain with a self-satisfied glance, north, east, and west.

"Just there"—he pointed a lean finger toward the west—"we'll build our aqueduct and store the snow-water. Look at these brick-paved streets—we'll flush 'em every night. I'll have a clock-

work arrangement to do it automatically at a certain hour.

"We'll make a continuous flower-garden on both sides of these here streets. We'll build our own electric plant, run the city water supply through a turbine for power, throwing two stones at one bird, as it were. It's swell! Fine! Hooray! How's your stock of chewing holding out?"

"While I think of it," I said, "what's hear," I said; "but go on in, lemons, I'm with you. If we don't do it, we'll leave it in such a fix nobody else will."

We rallied together our twenty men, gave 'em instructions, and started the ball rolling. It was a systematic and intelligent crusade against the natural order of decay in the town from that time on. We cleaned up, painted, and repapered the place from John O'Groat's to the Milky Way.

GLOWERING AT US LIKE A PUG DOG WITH ASTHMA.

going to be the main industry of this Valhalla community?"

"Sugar-beet factories, truck-farming, brick-making, cement," he snorted contemptuously. "I'll start a flying-machine factory that'll employ five hundred men, if nothing else. Gee! Anybody to hear you ask questions would think your ideas had started to ingrow on you. We'll make this village the eighth wonder of the twentieth century. Already I can hear the hum of dynamos and the whir of machinery under the brow of yonder hill—"

"That's the wheels in your head you

If we found a shanty that didn't suit us, or that Honk thought wouldn't look artistic when rejuvenated, we either razed, burned down, or blew it up, and made a park, a flower-maze, or a drinking fountain in its place. We repaired pavements and sidewalks, straightened up streets, sent for more men and teams, started our reservoir dam, and drilled for artesian water on suspicion.

The original population of the town had had a few wells with a kind of soap-sudsey tasting water in them, whose only merits were a certain wetness and the fact that it did not immediately result fatally.

These we left alone for the time being. Later they were filled up.

We established a twice-a-day line of wagon communication with the railroad, and offered free transportation and house rent to desirable families that wished to come in and get on the ground floor of Valhalla's wave of prosperity. How's that for maudlin metaphor?

While the water supply question was being investigated we designed and laid out a park and boulevard system, finished up all the concrete part, walks, fountains and cascades — everything up to snuff. We had it all ready for the turning on of the water.

"The populace of Valhalla will have playgrounds here for future generations," Honk said, and while we were about it he set up a number of artificial stone pedestals in the parks.

"What's them for?" I asked.

"Statues of Valhalla's great men, to be erected later," he said cheerfully.

"And is mine one?" I quoted.

"Nit—not so!" he replied. "Your fat face wouldn't look well in marble. It takes a Grecian profile like mine to show up."

"I've seen 'em like yours," I said. "Profile and front elevation on the same card; with measurements, location of scars, moles, and warts described on the back."

Along about that time the well-drillers struck a hundred-barrel-a-minute flow of water at some seven hundred feet in depth, and blew their apparatus up on top of a near-by building. They also flooded that part of town. It took us a week to cap it, and the whole force was pretty well bedraggled before it was done. Ten families moved into Valhalla the next day.

Honk ordered every available man to the work of laying mains, and the town hummed with industry. Two general stores opened up for business, and a man brought a roulette and faro outfit over with a glad smile.

It made quite a nice little bonfire with gasoline when we burned it. I touched it off, and Honk gave the fellow six seconds to get out of range. He made it in five.

"While I have it on my mind," he mentioned for the benefit of those present, "I want it understood generally over the country that while Horace and me are sojourning around here Valhalla ain't going to be no disreputable mining-camp. All you boys can send picture-postals to your friends to that effect.

"Every desirable citizen who favors us with his presence will receive a warm welcome, and we'll try to find something for him to do; but the undesirables—siss, boom! Horace, tell Bill Smith to wire for two car-loads of sod and a thousand maple-trees when he gets to Millardsville this afternoon, and for 'em to rush it."

Three weeks after we commenced operations Valhalla was coming out of the kinks. The water-works dam was steadily climbing, a solid barrier of masonry across the ravine between two hills.

Honk estimated that the number of gallons of water he would have stored back of that dam by the following spring would be sufficient to reclaim the entire Mystic Hills country and then some.

The string of figures he had on the subject was a foot and four inches long—I measured it with a ruler.

Honk also had half a dozen things plotted in the way of plants for running dynamos to furnish light, heat, and horse-power so cheap the inhabitants would think they stole it; and his head was so full of pet projects for making Valhalla a living wonder in the way of a spotless town that his skull was beginning to bulge in places.

"Talk about the ideal towns of some of these Eastern capitalists," he kept dinning in my ears, "we'll make 'em all run for cover. Here we'll have a perfect climate, the unsullied soil in its virgin purity, a city built on scientific and artistic lines, everything hygienic, orderly, and ornate.

"When the good housewife needs a small order of groceries, she writes a slip and inserts it in a pneumatic tube—whisk! In a few minutes the white-aproned clerk stops his rubber-tired electric cart in the paved alley at the rear, and delivers the parcels.

"We'll harness this mysterious force of electricity to do the drudgery of Valhalla. On wash-day the good housewife dumps the soiled clothing of the family into a tank, presses a button, and behold! the said apparel comes out washed,

starched, dried, ironed, and folded neatly. I've got the machine to do it with all worked out in my mind." He tapped his forehead with a smudgy forefinger, and went right on:

"We'll have no ratty back yards and stinking garbage piles in the alleys of this city. All refuse will go into a chute that will lead to an electric incinerator. What'll be the consequence? No flies, no vermin, no disease-germs, no sickness. Mortality reduced to the minimum—"

"Why not cut out the mortality altogether?" I interrupted. "We can refuse to let any doctors in, and—"

"Future generations growing up in an atmosphere of health, beauty, and intelligence," he continued, unmoved, "will become broader-minded, more perfect physically, and—and—how's your chewing, Horace?"

"I only see one drawback," I said, while he was loading up, "and that is the fact that you'll have to contend with a lot of pork-heads that'll likely have little ideas of their own to introduce free of charge."

"Them we'll eliminate," he said. "Whenever a mossback pops into Valhalla and starts arguing that the world is flat, and that they done so and so back in Sumach Township, where he was raised, we'll gently but firmly escort him to the horizon and attach him to a skyrocket."

"Why not proclaim yourself autocrat, and make 'em all swear an oath of allegiance before you let 'em light," I suggested. "Let me be your grand vizier; I'll bet I could grand-vize 'em to a purple perfection."

"Leave it to me," he said. "You'd probably get yourself beat up for nothing. I'll manage the deal by sheer weight of mentality and moral suasion. You go down and start the boys to razing that jail-building this afternoon; it won't be needed in Valhalla, and we can use the brick and stone in our power-house."

That same afternoon we went out to the eastern edge of our fair city to decide some question of the drainage in that direction, and on our way back ran plump into a caravan that was entering Valhalla from the north along our classiest residence street.

The argonautic expedition consisted of two weather-stained and smoky sloops of the prairie, drawn by the toughest-looking crow-baits of horses I ever saw standing on hoofs.

A cadaverous looking person, who needed various shaves, hair-cuts, and massages—not to mention the ordinary ministrations of soap and water—was manipulating the strings on the forward van, and a half-grown girl wearing a man's vest steered the destinies of the trailer.

Numerous progeny peered out through slits and other openings in the wagon-cover. Four nondescript cur dogs were acting as convoy, a coop of chickens dangled beneath one wagon, and an uncurried cow lounged behind the procession at the end of a rope.

As we approached, a sun-kissed female with a bearded wart embossing her chin cuffed the kids into the-offing, hoisted the canvas cover, and burst into conversation.

"Hey," she said, "what might a house rent fer in this yer town of your'n?"

"Have you a house to let, madam?" Honk queried blandly.

"Huh?" she asked, with suspicion.

The lord and master of the caravan anted and sat into the game at that juncture. He sprung it another way.

"We-all air jest movin' in," he said; and I noticed that his eyes weren't mates—one was blue and the other brown.

"We want to git a place fer about three dollars a month to live in," he confided—"something with enough ground to raise chickens an' a few pigs an' a gyarden. I do teamin', an' the old woman does washin' an' sich. You fellers know of eny sich a place?"

Honk was overcome with his own emotions, and gazed in a dazed silence. I spoke up.

"I know the very place you want," I said fervently, "but you'll have to turn east at this next corner. As close as I can remember, it's about eighty rods from the mouth of the Kaw River, in Kansas City, Kansas. I don't know of a thing nearer."

It never touched them. It was a clean fumble.

"We like the looks of this here place pritty good," the woman said. "Drive on, 'Lias—these men don't know nothin'.

That there tall one looks like a eediot, anyhow."

"Tarry a moment," said Honk, with deep solemnity, as the man clucked to his nags. "Lemme whisper something in you people's ears before you get into serious trouble.

"This town is infested with a band of murderous ruffians, who wouldn't think nothing at all of seizing everything you possess the minute they lay eyes on you.

"Fly! Fly, while there is yet time! There isn't a woman in this town — only wild and lawless men. Hurry up! Whip your steeds to their utmost, and never breathe freely until you've put many miles behind you."

Just then a blast from the hills to the westward rumbled to us.

"Hear that?" Honk said to me. "That's Bloody Ben's pump-gun — I know the roar of it. He's killed somebody again. Fly, stranger!" he urged the pilgrim in the wagon. "You may be able to make it yet—but I doubt it—you've waited too long as it is. We'll try to keep 'em off you for the sake of your kids."

Two or three of the latter began to whimper at that, and the woman got rattled. Alkali Ike himself showed signs of nerves.

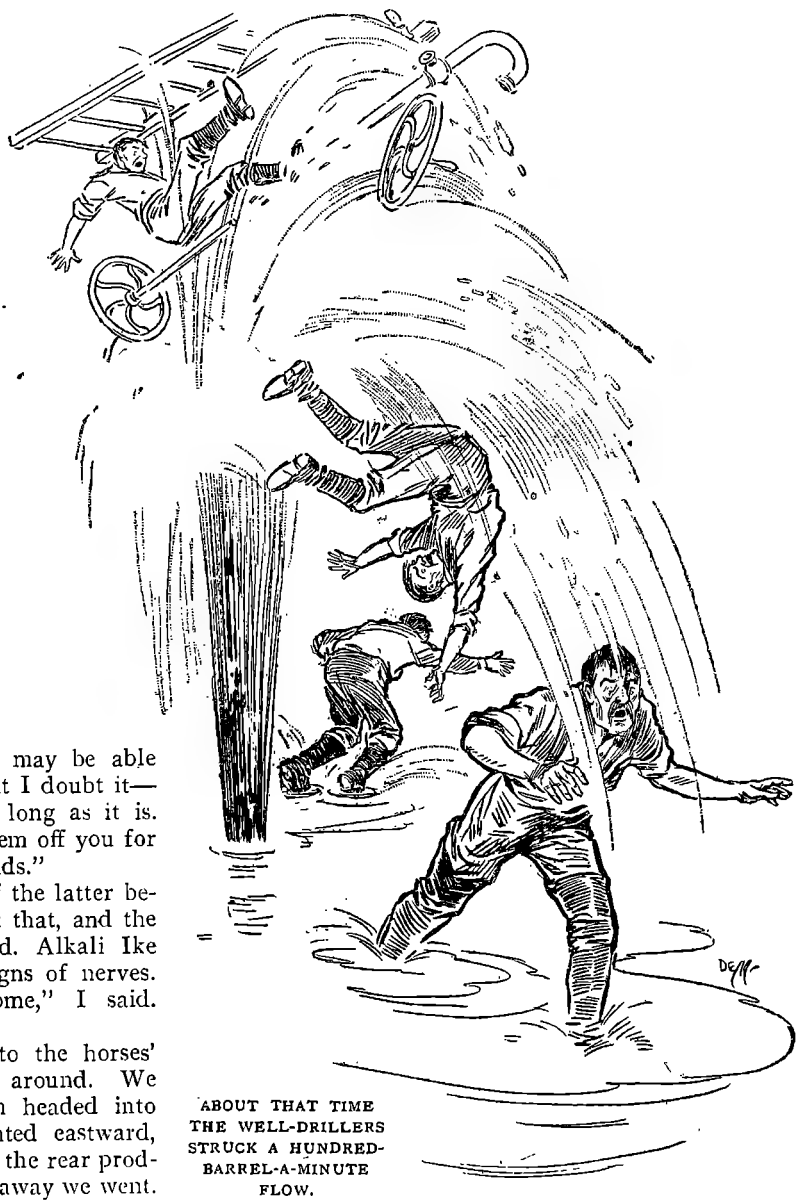
"Here they come," I said. "I hear 'em."

And I rushed to the horses' heads to shoo 'em around. We got the procession headed into an alley and pointed eastward, Honk bringing up the rear prodding the cow, and away we went.

The pursuit died away, and they crept stealthily out and trekked for afar without much urging; every kid under cover, and the grown-ups looking back now and then to watch for imaginary brigands.

The man took time to ask Honk if he had any "chawin'-terbacker," however, before the final parting, and was cited to me.

I surrendered all I had, and told him not to give it back. He didn't.



ABOUT THAT TIME THE WELL-DRILLERS STRUCK A HUNDRED-BARREL-A-MINUTE FLOW.

We lurked around behind a fuel-shed, and watched them until the last wagon faded over the slope.

Honk sighed with relief.

"Phew!" he whistled. "I hope there won't any more come like that bunch. I'm wore clear out."

"Didn't you like the looks of them?" I asked.

"Why, that's the kind of people that'd picket their cow in the street and keep their pigs in a movable pen in the parks," he said with bated breath, as he wiped away the cold sweat.

In truth, Valhalla was looking as cute as could be by that time. Grass and trees were growing in the parks and along the streets. There'd been enough rain in the hills to start a tolerable-like puddle of water in our reservoir, and every house, shed, and building in the town had received new paint and other rejuvenation, all of which helped some.

Honk fixed up his street-flushing scheme, with its automatic attachment, and it worked like powder in the fire. He had his flood-gates all connected up with a clock, and at a certain hour—midnight was selected for convenience—all the paved streets of Valhalla were deluged with a sheet of whirling water which ran down 'em like a mill race and washed 'em as clean and spotless as newly polished brass railings.

It was supposed to open and shut itself, and was no bother whatever. All that had to be done was to keep the clock wound and set at the proper hour.

Honk was considerably harassed in his mind for several days after the visitation of the two prairie schooners, for fear we'd wake up some morning and find that a mess of poor white trash had moved in during the night. He suffered many misgivings on that score, muttered in his sleep, and harangued imaginary desecrators of Valhalla's exclusive environs.

He didn't become wholly reconciled and free from these morbid fears till I journeyed over to the railroad one day and brought back from the medicine-house our loquacious friend, the phonograph, which we installed in the drawing-room of the ten-thousand-dollar pressed-brick residence we were occupying at that time, and turned it loose without restraint. Then Richard was himself again.

A few doses of "He Walked Right In, Turned Around and Walked Right Out Again," and "The Welcome on the Doormat Was Never Meant for Me," and Honk was right side up with care.

"There's nothing like a little line of music to chirk up the downcast spirits of a hard-thinking fellow like yours, etc.," he said. "After listening to a few selections from the classics like 'What's the Use?' and 'Take Back Your Heart, I Ordered Liver,' a man can chew his tobacco with the relish of boyhood—eh, Horace?"

At last we got things in Valhalla just about as sniptious as they'll ever be short of divine interference, and so reported to Dade, who was waiting for the word. Honk went over and wired the details himself, direct. Dade promised to come a-running with his party on a certain date all set, and Honk came-back to Valhalla, stepping high and wearing his Oh-pifflethere's-nothing-to-it smirk.

"They can't get away from it," he said, puffing indolently at a cheroot he'd acquired somewhere. "It's all foregone—nailed, tied, and tagged. If Dade brings really truly people with money to invest out here it's all over but writing the receipts."

It was a Friday when the Dade party stormed Valhalla. They came in ten big automobiles, each loaded to the guards—I mean the automobiles—and were quite a likely looking herd of plum-seekers. There were five severely critical women in the party, whom Dade confided were wary and mightily sophisticated, but had the coin to spend if we could show the goods.

Then there were fifty or sixty fat and foxy gents of various ages and varieties of personal charm, who were rated at all the way from tolerably well-heeled to double A one star plus x. All took a keen interest in everything they saw, and there wasn't much they overlooked either, by the way.

Honk burst into radiant blossom and marched proudly at the head of the parade, spendthrift of words and figures, loud in explanation of the enormous possibilities at hand—bubbling, spouting, and spraying his enthusiasms right and left. I trotted along, not to make any big talk or to volunteer any rash asser-

tions, but just as a sort of corroborative witness, if needed. If Honk stated that electricity could be made and furnished for one-eighth of a mill per watt hour, thousand feet, or crate, or whatever he said, couldn't it, Horace? I was there to nod sagely and look around as if daring anybody to offer a bet to the contrary.

Valhalla made a favorable impression on 'em, all right. Our wide, clean streets; our parks, lawns; neat, newly painted buildings, and the general air of spotlessness pervading everything, caught 'em. We took the whole push all over. We showed 'em Valhalla from every angle.

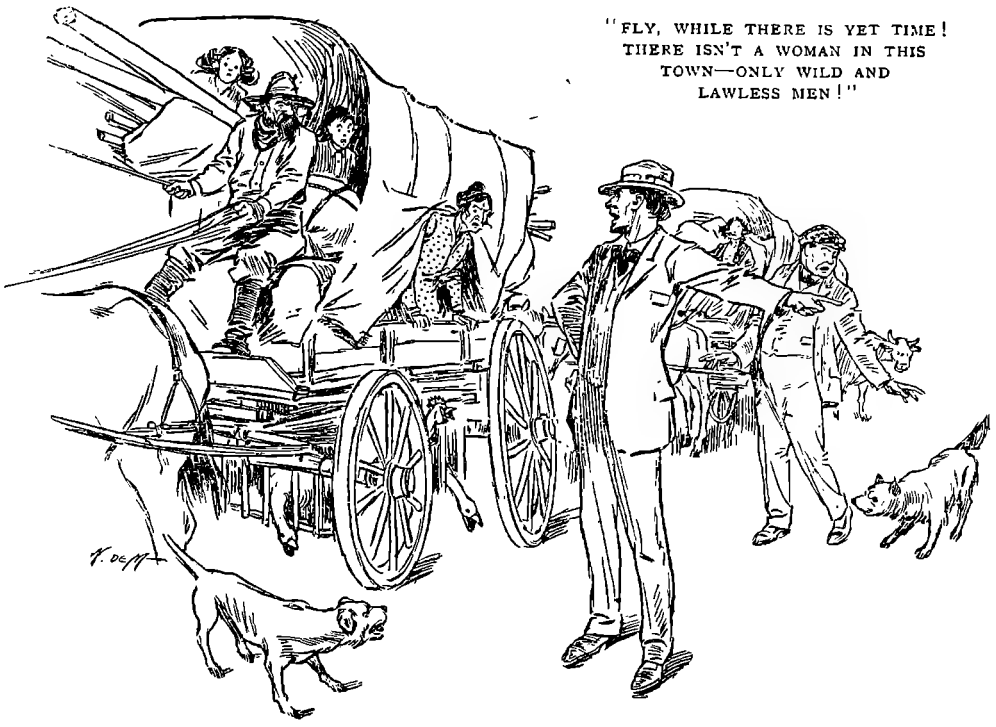
We piloted 'em out into the hills, where they could get perspectives and take a look at the reclamation work. Honk proved to every one of them except a certain austere-looking young lady with a trigonometrical forehead that he had water-power enough within hailing distance to run as ponderous and complicated a plant as the mills of the gods themselves.

He did it that time on the back of an envelope, too, which shows what a man can do when he's warmed up. Honk was a mean hog when it came to figures on water-power. After awhile they got to palavering about factory sites and jotting down memorandums of this, that, and the other for future reference.

Some of them proposed to dabble in real estate pretty promiscuously. You could see that from the way they gloated over the residence streets from points of vantage.

Then we showed 'em our street-flushing scheme, and explained it, called attention to our sewerage, visited the artesian well, mentioned the fertility of the soil, the peerless climate, the latitude, longitude, altitude, and attitude of Valhalla, which made all others look like tin money in a clearing-house, succeeding which the push went to lunch, with the understanding that the afternoon was to be occupied in signing up contracts, deeds, franchises and concessions, smoking perfectos, chewing gum, and exchanging attests.

There was a four-story, rough-faced



"FLY, WHILE THERE IS YET TIME! THERE ISN'T A WOMAN IN THIS TOWN—ONLY WILD AND LAWLESS MEN!"

brick hotel building, as yet untenanted, whose big dining-room was used for this occasion.

Some of the guests really enjoyed the canned goods. It was change enough to appeal to 'em. About the close of the banquet Honk slipped out and called one of our henchmen—one Butch Poteet by name—and told him to hot-foot it up to the waterworks and turn on the water.

"Turn on the park mains, Butch," he said. "And give us some pressure. I want to show these people what we've got. Turn on the whole works." We dilly-dallied around to give Butch time, and then Honk proposed that everybody go over and sit in the park for an hour or so and enjoy a nice rest by the cascades. Sure they would. Fine! Excellent idea! So we all started.

Now, so far as I know, nobody ever gets to be such a favorite of fortune but what trouble won't sneak around and smell of his trail occasionally. And trouble happened along there just about then. There we went, parading up Valhalla's quiet street, in the best of humors all. Dade was expounding to those nearest on the history of Valhalla in his usual effective manner.

"A great and important drawback to this country heretofore," he was saying, "has been the lack of water. It has been a perplexing—b'hum!—problem, and it remained for us to solve it, which we have." One old gentleman, whose hearing was going down the western slope, didn't quite catch the gist.

"Eh?" he said. "You say you have solved it? How?"

At that moment a two-foot wash of racing water danced into view fifty yards away, stretching from curb to curb of our street, and coming toward us with the speed of a mail-train trying to make up a lost hour. Dade didn't need to answer, the bunch could see.

When that young river struck our party of investors there was a squeak or two from the ladies, and a kind of a sigh and a heave from the male portion, then—down went McGinty!

In the twinkling of a mischievous eye our street was a squirming mass of legs, arms, and other débris shooting the rapids. It was heap much splash! Away went the ladies merrily, and here and there a bald head bobbed up, spouted, and clove the water like a porpoise.

I went down with the rest; but managed to port my helm and luff to the starboard, so I climbed out on the curb and watched ye regatta. There went old Honk, clawing at the pavement on his hands and knees, and a large gentleman, with a parasol, bore down on a skinny man, who was traveling rapidly in a sitting position.

Some managed to regain their feet, but in attempting to gallop ashore lost their footing and reposed again in the hurrying tide. It didn't let up, either. Butch had "turned on the whole works."

That street-flushing scheme was the real article. It took along wheat and tares just the same as the sheep and goats. Whether they wanted to go or not made no difference—they went.

Was that outfit angered? Ask Honk. As quick as that crowd of aquatic disporters scrambled out of the souse and got its bearings, they made high jumps and sprinkled the side streets for the automobiles. And they didn't listen to any explanations or excuses, either. Not them!

It was back to the taxicab for them and steer for the land where streets are flushed by the time-honored method of a section of hose on the corner fire-plug. Dade bobbed up out of an alley about the last of all. He had made the longest race of any but one, but he was so waterlogged that he let the guy beat him back to the home base.

Dade was too full for utterance. He tried to rally 'em around the old flag, but there was nothing didding, so he busied himself with coughing up large chunks of wet water and exploding periodically like a gasoline engine with a bum sparker.

With deep dejection, Honk stood, with his wayward feet splashed by his drip, and watched them sail away. Some of them even went so far as to shake sand-caked fists at us over the backs of their cars as they left, many bareheaded, with their scanty hair drying awry in the sun.

"I thought these capitalists were great hands for a plunge," I remarked, with a watery leer.

"Come on," Honk said. "Let's go find that Butch. I want to whisper something to him with a club."

Heraldry of the Railroads.

BY GEORGE FOXHALL.

FLAGS, emblems, and coats of arms are by no means the product of a desire for useless ornamentation. When they were first invented they served a remarkably useful purpose. Of course, it is a purpose that no longer exists, but devices of this character still serve a purpose as useful. Among the thousands of public-serving corporations, where names are complex, numerous and, in many instances, similar, a well-chosen device is often more distinctive and better known than the name itself.

The Romance of the Continent-Covering Steel Tracks As It Is Emblazoned Upon the Scutcheons of Time-Tables, Posters, and Rolling Stock.

IN the old days, when the world's history was in the making, certain gentlemen of amiable temper went wandering around spiking each other upon the ends of long spears. This was doubtless a very modish and convenient form of amusement; but as the pastime increased, and the gentlemen were led to clothe themselves in ironware, it became very hard to distinguish the person one wished to spike from the people who, because of affection or policy, he might desire to leave unspiked.

That is why the custom of carrying a bannerette or an heraldic device, painted with more or less art upon the owner's shield or helmet, came into effect. At first it was a rather happy-go-lucky sort of business, and the method of deciding what particular device should be adopted was left pretty much to a happy chance.

For instance: Some gallant gentleman is wandering along the highway at dead of night. He comes across a mortal enemy, and gallantly removes his head from his shoulders with a long two-handed sword. Posterity is informed of this fact by an attractive engraving of a dripping head, *or,* beneath which is a cleaving sword, *argent,* on a field *gules.* And there you have a thoroughly well-made design, ready for your descendants to use forever and ever.

The writer may add, incidentally, that the terms *or, argent,* and *gules* are heraldic terms of which he is as blissfully ignorant as he is blissfully indifferent. Therefore, if some student of antiques should find in the heraldry of these designs something to take exception to he is doubtless quite right.

Making Family Decorations.

By and by, however, people quit spiking each other and sawing off heads for the sake of getting decorative family ornaments, but the same old custom of identifying oneself by painted devices survives. Whether it was because of the good start it got, or because it reminded humanity of its former pleasant, primitive glories, we do not know.

We doubt, however, whether anything bloodthirsty survives with the idea, as we are sure that none of the well-conducted corporations who have been at great pains and considerable ingenuity to devise attractive designs have anything in their minds except the devout desire to serve a more or less bloodthirsty public.

Every reader is familiar with the heraldry of the sea—at least, we like to tell every reader that he is, though doubtless he is not; but, anyhow, he knows that such a thing exists. The flags of the various merchant lines, as well as the national flags, war flags and ranking flags of the great navies of the world have been the subject for endless journalistic effort.

But there is a heraldry as important under the devices and banners of which flies at terrific speed wealth of treasures and lives many times in excess of that beneath all the banners that cover the face of the waters. Perhaps its significance is not as keen, but its symbolism is often as deep and as romantic.

Swastika of the Rail.

In glancing through the field of railroad heraldry, the first place historically must be given to the emblem of the St. Louis, Rocky Mountain and Pacific Railway Company. This emblem has practically got all mottoes, devices, or designs, enacted or constructed by our spike-sticking friends, beaten all the way round the world when it comes to age.

The main ground of this device is a swastika. The swastika was doubtless invented by some friend of the great-grandfather of the gentleman who built the Cheops pyramid or the smiling Sphinx or the hanging gardens of Babylon or the Tower of Babel. Anyhow, it seems to have been found in every part of the world, and at every time that history can put a tag on; and some that she cannot, even if she does not admit it.

The swastika on a black flag, with a circle surrounding it, bearing the words, "The Rocky Mountain Route," is the emblem of this road. It probably typifies the age-enduring strength and richness of the country through which the road passes, as well as hints at its history, the swastika having been one of the earliest decorative designs of the American Indian tribes.

An Emblem and a Religion.

There is so much to say about the Northern Pacific's peculiar trade-mark that the difficulty is in selecting things to be said in the short space we wish to occupy so as to give a full idea of the large meaning of the symbol. For antiquity, this trade-mark runs the swastika a pretty good second.

As nearly as it can be traced, it originated, as a symbol, in the abstruse mind of a young Chinese named Chow Lien Ki. This young man was an ardent lover of nature, and in the course of his rambles he discovered a cave of peculiar formation.

He used a modification of the outline of this cave to illustrate a system of philosophy established by Fuh Hi, a Chinese philosopher, who lived some three or four thousand years before Christ. The symbol, which at first seems very complicated, is in reality exceedingly simple.

If you describe a circle, and rule a line through the diameter, then describe two semicircles, having the center one-quarter of the distance and the circumference touching the center of the larger circle, the semicircles facing in opposite directions, you will have the simple outline of the Great Monad.

The system of philosophy is stated as follows: "The Illimitable produced the Great Extreme; the Great Extreme produced the Two Principles; the Two Principles produced the Four Figures." And from the Four Figures were developed what the Chinese call the Eight Diagrams of Fuh Hi, in 3322 B.C.

Taken from the Korean Flag.

This is the origin of the symbol, but it is not from this source that the Northern

Pacific adopted it. To quote from the history of the trade-mark as published by the company:

"The design was discovered and adapted to its present use in 1893. Mr. E. H. McHenry and Mr. Charles S. Fee, then, as now, the chief engineer and general passenger and ticket agent of the company, respectively, are principally to be credited with its discovery and adoption.

"The Northern Pacific was in search of a trade-mark. Many designs had been considered and rejected. Mr. McHenry, while visiting the Korean exhibit at the World's Fair, was struck with a geometric design that appeared on the Korean flag.

"It was simple, yet effective—plain, yet striking. At once the idea came to him that it was just the symbol for the long-sought-for trade-mark. With but slight modification it lent itself readily to the purpose."

The Aristocrat of Emblems.

Another design, the foundation of which can do pretty well in the matter of having attained years of discretion, is the "F. F.V.," significant of the great flyer of the Chesapeake and Ohio, between New York and Cincinnati. This emblem is a product of local pride, and as the streak of yellow glory flashes herself brilliantly through the vivid Virginia sunlight, the First Families of Virginia in particular and in general look upon her with patriarchal pride and think of the old days when to be of the First Families of Virginia meant to be a prince in the State—if such a thing as a prince can exist in a democratic commonwealth.

In short, the origin of the symbol, "F. F.V.," or, to quote the full title of the train, "Fast-Flying Virginian," is a complimentary reminder by its initials of the phrase, "First Families of Virginia." In that section of the country before, and shortly after, the Civil War this term was so much used, and it had so much meaning, that the abbreviation "F.F.V." was quite common.

When wishing to attract the attention of the public to the first solid vestibuled, electric-lighted dining-car, sleeping-car and coach through train operating between the East and the West, Mr. H. W. Fuller, then general passenger agent of the road, decided that the surest method was to use some form which would abbreviate into these famous initials "F.F.V."

Some of the emblems adopted by railroads are very simple, apt, and obvious. Such as, for instance, that of the Reading. This design is a black diamond, with the lettering "The Reading" in white characters on it. It need not be explained that this is significant of the anthracite territory through which the Philadelphia and Reading, a great coal-road, operates.

The Lehigh Valley has a similar significance, except that its black diamond, bearing the white letters, "Lehigh Valley," is placed upon a bright red flag. This was originally designed by the former general manager of the Lehigh Valley Transportation Company, which operated a line of boats upon the Great Lakes, and was adopted as the private signal of the boats on that line.

These boats formed the lake line of the Lehigh Valley Railroad Company, and were engaged principally in transporting anthracite coal from Buffalo to St. Paul and Milwaukee. The idea of this gentleman was to use the red color as indicating the color of the flame peculiar to anthracite, the black diamond to represent the coal itself, while the letters, "Lehigh Valley," were shown on the diamond in white to indicate the cleanliness and purity of the road. This emblem was adopted by the Lehigh Valley Railroad Company about the year 1890.

The emblem of the Wabash Railroad consists of the word "Wabash" in white characters on a black square on a red flag, intended to carry the conviction to the observing eye that the Wabash is the

banner road. The emblem at first was shown in the glare of a headlight, instead of on the banner, but as the Wabash grew older and began to look around and see what a big-sized boy it was becoming, it decided that it could just about show its tail-lights to anything on the line. So it threw the headlight out and became the Banner Road.

Admiration or Derision.

Everybody knows that the New York, Chicago and St. Louis Railroad is the "Nickel Plate." Very few people know why. Personally, the writer has two stories why, and as they are both good ones he prefers to believe them both; not because of any similarity that exists between them, but because he got them both from very high authority, and both of them were doubtless told in perfect good faith.

The reader will probably make a choice. The writer has too much admiration for the veracity of everybody. The first story relates how, early in the construction of the line in 1881, great rivalry was manifested by several of the larger towns in Ohio in efforts to secure the location of the road.

Among these rival towns was Norwalk, Ohio. The editor of the Norwalk *Chronicle* was a member of the committee having in charge negotiations for the location through that city; and when the final decision to run the road via Bellevue was reached, this editor, in a spirit of disappointment, stated in an editorial that "after all they were not losing very much, as it was nothing more than a nickel-plated road, anyhow."

As our informant comments, from this remark, made in a spirit of derision, was designed for this line the distinctive appellation whereby it is known all over the world.

The other story that we have at a later date casts, we regret to say, some

aspersions upon the veracity of all rival story-tellers, among whom doubtless was our own faithful chronicler.

This informant says: "The popular sobriquet of the New York, Chicago and St. Louis Railroad has furnished the subject for the weaving of many and varying tales, each with more or less foundation in fact, as suited the purpose of the dreamy narrator of corner-grocery legend or the resourceful and visionary space-writer doing time on the Sunday blanket-sheet."

This mild ridicule rather hurts the feelings of the present writer, for he has told the first story himself effectively, amid deeply touching scenes, many, many times, and at so much per. Our cold-blooded critic and informant tells us that in place of our own delicately constructed little narrative we should all the time have been relating the following bald facts, which, while they have many points of similarity with our own bold narrative, lack the touching dramatic atmosphere thrown in by the bitter disappointment of the Norwalk editor.

We are told that this editor was actually building up the enthusiasm of his fellow citizens amid the very pleasant rivalry of the Ohio towns, and that in the issue of April 14, 1881, of the Norwalk *Chronicle*, he spoke of the road, its glittering prospects, the brilliant possibilities opened up for the cities through which it operated, together with the gilt-edged character of its financial backing, and characterized the institution as "the nickel-plated road," the term having been intended as showing a bright and exceptional attribute of the enterprise.

The Domestic Katy.

The emblem of the Missouri, Kansas and Texas is also in the form of a nickname, "Katy," and is doubtless better known among railroaders as "Katy" than by its longer and more dignified appellation. The name springs from the fact that the Missouri, Kansas and Texas was, prior to 1888, operated as part of the Gould Southwestern system, being known

at the time as the Kansas and Texas division. This among trainmen was naturally abbreviated to "K. and T.," and thus to "K-T," and therefrom, by this easy step, into the touching, homelike, and affectionate cognomen, "Katy." It is very domestic.

The "Keystone" System.

Of course, everybody knows why the Pennsylvania Railroad adopted the trade-mark of the keystone; and, of course, everybody is wrong—at least, they are a little shy of facts. The Key Stone, as an emblem of the Pennsylvania, is the result of a westward movement among emigrants and among the presidents of the State of Pennsylvania in 1877.

Mr. Thomas E. Watt, who was at that time district passenger agent at Pittsburgh, in preparing some advertising for the purpose of influencing this business, suggested the use of the Key Stone. His suggestion, as carried out at that time, included with the keystone the headlight of a locomotive, and the rays of light from the headlight illumined the reading matter on the flyer.

Mr. L. P. Farmer, then general passenger agent, was struck by the effectiveness of the idea, and suggested that the keystone would be most suitable as the regular emblem for the Pennsylvania Railroad.

Canada's National Railway.

One of the most picturesque of railroad trade-marks is that of the Canadian road, the Intercolonial Railway. This device is a moose head looking through a double circle, on which appears the words, "The Fast Line, the People's Railway." This was first used in 1883, and in 1887, with the Canadian arms, was made a combination device, indicating the government ownership of the railway.

The moose head was adopted by this railway because no other railway in the country passes through such an extensive stretch of country so definitely recognized as the home of the moose. Both the moose head and the coat of arms appear on the folder, but the moose head is the recognized trade-mark of the road.

Santa Fe's Repentant Moods.

Perhaps no railroad has changed its trade-mark as often as the Santa Fe. The trade-mark adopted in 1890 is described by the *Santa Fe Employees' Magazine* as looking like a cake of soap, with the words "Santa Fe Route" across it.

The trade-mark adopted in 1894 is very gorgeous, but is a product of the very worst pun that man was ever compelled to survive under. The main portion of the device is the Western Hemisphere, with a lion standing on top and the words "Santa Fe Route" scrolled beneath.

We are asked to appreciate the significance of this work of art as "the Big Line" (lion).

The present trade-mark of the company was devised in 1901, on train No. 2, going into Chicago. Mr. Davis, then industrial commissioner, and Mr. J. J. Byrne, at present assistant passenger traffic manager, used what they said was a silver dollar, but what was doubtless a poker chip, to draw a circle, and within the circle they drew a cross. This device is not so ornate as the one of 1894, but it stirs up less animosity against the designers.

First Railroad Trade-Marks.

But the Santa Fe line pales into insignificance in the matter of ornate design when compared to the old trade-mark of the Chicago Northwestern. It was, perhaps, the first design adopted by any railroad as a trade-mark.

The company, therefore, had nothing to guide it, and the result looks like Halley's comet striking a palm-grove. The only thing it leaves whole is a map of the Northwestern route, and about the only thing we can be sure of is the statement set forth and

only slightly damaged by the comet's tail, that "the Northwestern penetrates the richest and most attractive portions of Illinois, Iowa, Nebraska, Wyoming, Wisconsin, Minnesota, Dakota, and northern Michigan." Evidently the penetration was very effective.

One is prepared to forgive even the Northwestern, however, for turning to a simplicity just as pronounced and effective as that of the Santa Fe. The trade-marks now used are a circle with a diagonal hand across in black, with the words "Northwestern Line" in white, and a square of black, with the words "Chicago and Northwestern Railway" in white relief.

The maple leaf of the Chicago Great Western Railroad has an origin all the more interesting because the man who designed it received one hundred dollars for the job. In 1889 Mr. Busenbark, general passenger and ticket agent of the Chicago, St. Paul and Kansas City Railway, as the road was then called, offered a prize of one hundred dollars to any ticket agent in the United States who could suggest the most appropriate trade-mark for his company.

The result was that Mr. R. G. Thompson, who is now ticket-agent for the Wabash at Fort Wayne, Indiana—or was, some time ago—sent in the maple-leaf design, with the Chicago, St. Paul and Kansas City Railway System sketched into the veins of the leaf. The road has carried this design ever since.

Very few railway emblems or trade-marks can boast of a better known or more distinguished designer than that of the Atlantic Coast Line. In January, 1871, Colonel A. Pope, who was then located at Wilmington as general passenger agent, devised the present emblem, a double circle, with the words "Atlantic Coast Line" in red in the center and the names of the States through which it passes between the circles.

The Atlantic Coast Line informs us that there is no special history connected with the trade-mark. We think that most old railroad men, especially in the South, will agree that it is sufficient history for any trade-mark to have been designed by such a famous railroad man as Colonel Pope.

Is It a Clover-Leaf?

The emblem of the Toledo, St. Louis and Western Railroad, popularly known as "The Clover-Leaf," is a standing monument to the native shrewdness of an Irishman. This Irishman, Mr. James M. Quigley, was the president of the road in 1886.

When the track was being changed from narrow gage to standard the company wanted an emblem, and the president suggested the shamrock. The directors held up their hands in indignation, and Mr. Quigley beat a strategic retreat, and smilingly suggested a clover-leaf.

The result is that till this day nobody knows whether the original emblem was a shamrock or the clover-leaf. The writer has friends who say they know the difference, but as he does not know himself he does not believe them.

In the matter of heraldry, the Chicago and Alton goes the whole hog. This company's design is real dyed-in-the-wool, medieval heraldry. The basic design is a shield surmounted by a very uncomfortable-looking helmet, which is, in turn, surmounted by an electric headlight with wings. It is very awe-inspiring.

On the shield are three links placed triangularly, and indicating the fact that the Chicago and Alton links the three great cities of the Middle West—Chicago, St. Louis, and Kansas City. Surrounding all this design is an artistic pattern of leaves, and surmounting the whole, in a cloud of steam, evidently coming from behind the light, are the words, "The Only Way."

These words, "The Only Way," form the advertising slogan suggested by Mr.

Henry Miller's presentation of his play, based on Dickens's "Tale of Two Cities," and called "The Only Way."

From such small beginnings do great things come.

Evolution of the Rio Grande.

The trade-mark of the Denver and Rio Grande was composed and evolved, as the writer is informed by its evolver, after much cutting and pasting and printing, and the exercise of considerable art and more ingenuity from a number of designs submitted by railway printing-houses, at his request.

The route is well known in its advertising as "The Scenic Line of the World." Most of the designs submitted were, curiously enough, formed by the head of a locomotive-boiler, some with one kind of ornamentation, and some with another. The combined result of all these designs is the front end of a locomotive-boiler, with the words "The Scenic Line of the World" on a banner beneath it, a mountain scene on the steam-chest, and the name of the company surrounding the view.

These prints are made in sizes standardized to United States coin, such as the dime size, the dollar size, and the half-dollar size, etc. This trade-mark has been used since 1885, and every piece of advertising or stationery has had the trade-mark on since last year.

One of the greatest railroads of the continent, the Canadian Pacific, uses one of the simplest but most effective of emblems. It is a beaver *couchant* above a black shield, with the words "Canadian Pacific Railway" in red. The beaver is, of course, emblematic of Canada, while the shield is the company's design for bearing its name. How this trade-mark originated is not known, as the early records regarding it were destroyed by fire some years ago.

The widely known trade-mark of the New York, New Haven and Hartford Railroad made its first appearance on the margin of a newspaper, and was evolved from the original type arrangement by the late Mr. C. T. Hempstead, who was general passenger and ticket agent at the time. He was traveling to New Haven from Lyndbrook, when he hit upon the design and drew it on the margin of his newspaper. For several years it was used in type form, but the emblem has now become a recognized feature of the railroad, and it is planned to make much more extensive use of it than heretofore.

Probably no railroad emblem has quite as much historical and legendary interest surrounding it as has the San Pedro, Los Angeles and Salt Lake Railroad, known as "The Salt Lake Route" and "The Arrow Head Line."

The design is taken from the phenomenon on the Arrow Head Mountain, near San Bernardino, California, one of California's geological wonders.

On the face of this mountain, and overlooking the whole of San Bernardino Valley, stands out in startling clearness an immense arrow head, caused by a formation geologically different from the rest of the mountain. It consists chiefly of disintegrated white quartz and light gray granite, and is covered by a growth of short white sage and weeds. This lighter vegetation shows up in sharp contrast to the dark green growth of surrounding chaparral and greasewood.

By actual measurement the arrow head is 1,375 feet long and 449 feet wide, covering an area of seven and one-half acres.

The legends regarding it are numerous, covering a period from the undated past to as recently as 1858. Perhaps the most appealing and pleasantest of the legends is that of the Coahuia Indians, which is to the following effect:

In the days of long ago the Coahuias dwelt across the mountains to the eastward, near the San

Luis Rey Mission. Now, although of a peace-loving disposition, they were continually harassed by their warlike neighbors, who stole their ponies, devastated their fields, and burned their jacals.

Thus for many years they lived unhappy and in constant fear, until at last the persecutions could no longer be endured, and at command of their chief the tribesmen gathered in council for the purpose of calling upon the God of Peace to assist and direct them to another country, where they might acquire a quiet home land.

Impressive incantations and ceremonial songs of peace were performed under the direction of the chief medicine man. Now, being a gentle people, they found special favor with the Great Spirit, by whom they were directed to travel westward, and instructed that they would be guided to their new home by a fiery arrow, for which they must be constantly watching.

Accordingly, the tribe started upon the journey, and one moonless night, when the camp sentries had been posted with usual injunctions to be watchful, there appeared across the vault of heaven a blazing arrow which took a course westward, settling upon the mountain, where the shaft was consumed in flame, but the head embedded itself, clear-cut, in the mountainside.

The camp was aroused, and while yet the morning star hung jewel-like in the sky, and a faint gleam of light in the east heralded the approach of day, they resumed their journey to the promised land, under the shadow of the mountain, where they located, and lived in peaceful contentment until the coming of the white settler.

As far as national interest is concerned, the Baltimore and Ohio will probably always take precedence in the railroad world, for the reason that it was the first incorporated steam railroad in the country.

Emblem of the First Route.

Its emblem is peculiarly fitted for the road possessing this distinction, and besides it has a particularly artistic and distinguished effect, especially in colors.

The dome of the National Capitol forms the groundwork for the emblem, and a ribbon encircles it, with the words "The Baltimore and Ohio Railroad"; and in the upper rim of the circle the words, "All Roads via Washington." There seems to be no particular history attached to this emblem, apart from its unconscious significance.

The Iron Mountain's Remorse.

The Missouri Pacific and Iron Mountain is another road that repented of its misdeeds as a punster. Some years ago it was the proud possessor of a trade-mark originated by a gentleman whom we will not expose, which consisted of a large steer's head, with the words, "Steer for the Mountain," placed between its horns. We understand that the discriminating steer ultimately tossed the pun off the paper, and it has not been heard from since. The present trade-mark of the company is a large red seal, with the words "Missouri Pacific Iron Mountain" in white block letters on the face of it.

The Kansas City Southern has no specific trade-mark, but it uses as a sort of motto the words, "Straight as the Crow Flies—Kansas City to the Gulf." Some time ago it had what might be called a trade-mark, for a very short time. It was a fifteen-inch rule, with a map of the whole line down it. Probably this road is the only one in the country with over one thousand miles of track that could get a map of its road on a rule.

Pike's Peak Lion.

Some years ago the Colorado Midland was familiarly known as "The Pike's Peak Route," and used as its emblem a picture of the famous mountain in a triangular space. This has recently been abandoned, and the prevailing emblem of the road now is a Rocky Mountain lion, which snarls savagely at you as you con-

template the possibilities of making the trip to Pike's Peak. The effect is startling, but artistic, and the poster which first bore the emblem was, for a number of years, in great demand all over the country. It is one of the most effective of trade-mark posters.

From an Old Freight-Car.

Shortly after Mr. E. L. Lomax, general passenger-agent of the Union Pacific Railroad Company, entered the service of that road at Omaha, as assistant general passenger-agent, the late Mr. T. J. Potter, the vice-president and general manager of the Union Pacific, asked him to get up a trade-mark for the Union Pacific Railroad that would convey an idea of patriotic association with the government, using the national colors—red, white, and blue.

Mr. Lomax, during his search for something suitable, saw a shield on an old freight-car which was altogether different from anything that he had ever seen in the shape of shields, and it occurred to him that, with proper changes, a good trade-mark could be worked out of it.

He had about a hundred sketches of different forms of shields drawn, and finally selected one that did not conflict with any other shield, national or otherwise, of which he could get a record. He had the upper corners cut off and the body widened and a point drawn at the bottom, and thirteen stripes, alternately red and white, shown in the body, and a blue background with white letters at the top. This was at once approved and adopted.

Later Mr. Lomax wanted to work in the words, "The Overland Route," as that was the old name of the Union Pacific, and this was done in the shape of a legend at the bottom and outside of the shield; but, later, he concluded to show this in the center of the body of the shield within a narrow parallelogram and a ring. Then he added, at the bottom of the shield, "World's Pictorial Line," which was later eliminated.

When the shield was first worked out, the parallelogram extended diagonally through the middle of the shield from the right at the top, to the left at the bottom. This, however, was changed later to run from left to right.

The time consumed in working out the various changes, in accordance with ideas which occurred from time to time, was in the neighborhood of one year.

These brief descriptions do not cover, by any means, all the interesting or romantic devices of railroad heraldry, but they are sufficient to show the reader that there is being built up a very large and very significant system of emblems and trade-marks to float over the argosies of the rail, each peculiar and representative.

A LONG SHAVE.

LA JUNTA again appears with an achievement out of the ordinary. In fact our correspondent there claims that Tom Allen has peeled with his lathe the longest steel-shaving on record, the same being 151 feet in length, with the outside diameter of the curl 1¾ inches, thickness of the shaving 3.32 of an inch, and the depth of cut 9-16 of an inch. It was turned from the axle of an old 507-class locomotive.

We are sorry to disappoint the La Junta boys, and it is possible they may be able to stretch that shaving so as to successfully claim the record, but in April, 1908—as will be seen by reference to the issue for May, 1908—Frank Shively of Cleburne, Texas, turned from a driving-axle a chip 151 feet 8 inches long.

So there you are. Possibly, with true La Junta generosity, the man who measured that shaving threw in the odd inches and only claimed 151 feet. At least La Junta had Cleburne "going some."—*Santa Fe Employees' Magazine.*

ON MARSHALL PASS.

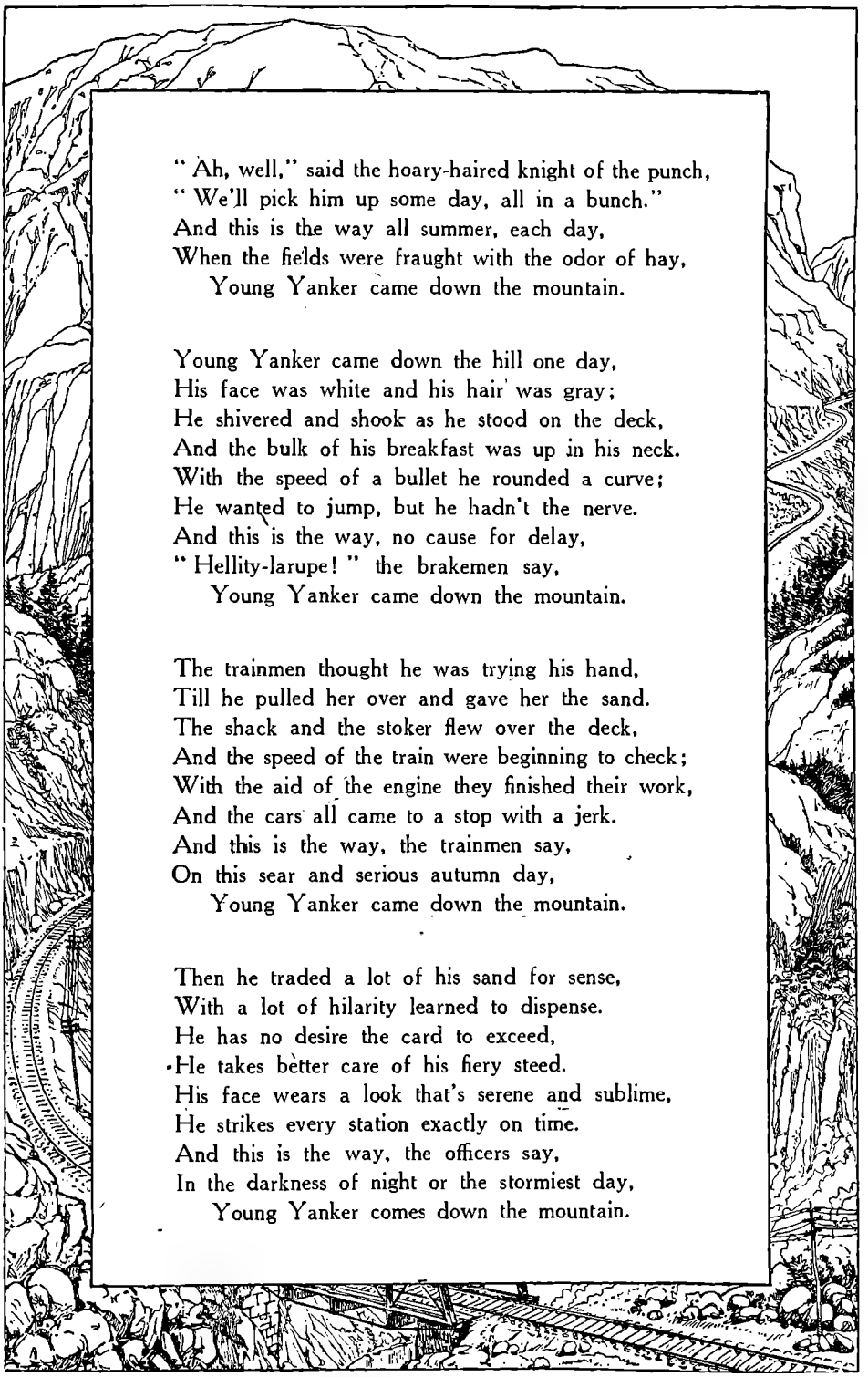
BY CY WARMAN.

Written for "The Railroad Man's Magazine."

YOUNG YANKER came down the hill one day,
And the wind could hardly keep out of his way;
The air was good and the brakes were set,
And he waddled his head with a "You can bet
That I am a brave young engineer,
Never see nothin' that looked like fear.
And this is the way, the brakemen say,
When the birds were singing one morn in May,
Young Yanker came down the mountain.

The station-agent flew out at the door
As the train went by with a rush and a roar,
Saying, "Young Yanker's exceedingly flip,
He must be making his maiden trip."
And then, after showing how fast he could run,
He'd pull the whistle for brakes, for fun.
And this is the way all summer, each day,
A little too sudden the "soop" would say,
Young Yanker came down the mountain.

The shack and the stoker would congregate,
And the youthful conductor would then relate
How the old-time runners would take it slow,
And this daring young driver would let 'em go.



" Ah, well," said the hoary-haired knight of the punch,
" We'll pick him up some day, all in a bunch."
And this is the way all summer, each day,
When the fields were fraught with the odor of hay,
Young Yanker came down the mountain.

Young Yanker came down the hill one day,
His face was white and his hair was gray;
He shivered and shook as he stood on the deck,
And the bulk of his breakfast was up in his neck.
With the speed of a bullet he rounded a curve;
He wanted to jump, but he hadn't the nerve.
And this is the way, no cause for delay,
" Hellity-larupe! " the brakemen say,
Young Yanker came down the mountain.

The trainmen thought he was trying his hand,
Till he pulled her over and gave her the sand.
The shack and the stoker flew over the deck,
And the speed of the train were beginning to check;
With the aid of the engine they finished their work,
And the cars all came to a stop with a jerk.
And this is the way, the trainmen say,
On this sear and serious autumn day,
Young Yanker came down the mountain.

Then he traded a lot of his sand for sense,
With a lot of hilarity learned to dispense.
He has no desire the card to exceed,
He takes better care of his fiery steed.
His face wears a look that's serene and sublime,
He strikes every station exactly on time.
And this is the way, the officers say,
In the darkness of night or the stormiest day,
Young Yanker comes down the mountain.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

The Plight of a Man Alone in the Wilderness with a Beautiful Maid.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent and cares for them, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. It turns out that this half-breed, Simon, who was the husband of Anne Marie's sister; but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up. This Pierre refuses to do, and the girl and he scheme to escape in the canoe. It seems impossible, and, finally, Anne Marie, whose injuries are very painful, endeavors to make Simon swear on the grave of her father that he will protect her and take her to the home of her cousin, Antoine. Simon promises, but refuses to swear. He insults Pierre, and a fight ensues, in which Pierre succeeds in felling the half-breed and, with the help of the girl, binds him. Anne Marie, after damaging Simon's canoe in such a way that it will take some hours to mend, helps Pierre and the Indian to pack their canoe, and she and Pierre start up the river, leaving the Indian, who has shown very little interest in the happenings, to return and release Simon.

CHAPTER V.

A Battle of Giants.

IT was very early when Pierre awoke. Paddy had nestled up against the girl. As soon as his master moved he opened one eye, wagged his tail, and, finding himself perfectly comfortable, remained where he was.

It was quite chilly and still rather dark as the young man threw off his blankets and made his way to the upper end of the little island. There he sat upon a rock among the little scrubby firs and spruces growing in the scanty soil that had gathered in the crannies between the boulders, gazing intently up-stream.

To his right the sky was becoming clearer with the bluish-green tint that comes before the sunrise, and yellow pencils of light appeared and disappeared, so faint and hazy that they could hardly be appreciated.

Due north, where he watched the river, there was an uncanny aspect of darkness relieved only by the few faint streaks upon the water. Some old pines that had been blasted by lightning stood like gaunt watching giants, just limned in black upon the dark sky; the white-trunked aspens and the whiter birches gave clear notes that stood out upon the background of blackish green of the hemlocks, spruces, and firs; and the whole, as ever in the north, looked weird, full of many portents, pregnant with perils, yet imbued with a somber greatness and strength that lent a glory to the world of cold and hunger.

To his left the water was swiftly passing, deep but foam-flecked, over the dark surface, extending to the cliffs of the shore that was only just becoming visible, faintly suggested, like some visionary land.

The young man felt a sympathy for the strange beliefs that had arisen in Indian minds. He saw how natural it was

that the generations passed and gone had peopled the wilderness with windegoos and things of evil, and had seen, in the dark brown waters, river men and women whom it was ill-luck to molest, and had filled the forest with spirits of the wild things they hunted.

They hung the skulls of animals upon saplings cleaned of bark to propitiate their ghosts, and begged pardon of the bears, moose, and beavers they killed.

But the sky was growing lighter. New tints succeeded one another in the sky, and things could be seen more plainly. An old shell-drake left the rushes on the edge of the mainland to the right, followed by her brood of nearly grown ducklings. A couple of bitterns came along, in slow, ungainly flight, looking for fishing-grounds. Now and then a fish leaped, his rise making great rings upon the water.

Pierre began to shiver with the cold of the early morning, which can be dispelled only by a brisk camp-fire and a cup of hot tea. The world was so still that he was startled when, quite noiselessly, Anne Marie appeared beside him. Paddy had reluctantly arisen, and could be heard foraging about in the brush. He must have caught a glimpse of some fleeing squirrel or muskrat, for he gave a sharp bark.

"*Bonjour,* must tie the dog," said the girl.

"*Bonjour,* Anne Marie. I'm afraid he won't like it much. Still, I suppose that if those fellows pass by and see him on the island, it won't quite agree with your plans."

So he called the dog, and with his tump-line tied him near the place where they had slept. Then, in a great crack between two titanic rocks, he lighted a tiny fire and quickly boiled the kettle. As soon as this was done he put out the fire and went back to where Anne Marie had taken his post as a sentinel to watch the river.

"Go back and eat," he told her.

"Have you had your tea already?" she asked.

"Why, no; not yet. Go on, and come back when you have finished."

She was about to object, but he made a somewhat impatient gesture, and she turned away in silence and left him.

She had been gone but a few minutes when, far up the river, his eye was caught by some hardly discernible thing that no one unaccustomed to the woods could have noticed. It was a bit of a moving speck, faint against the dark background of the rocks, but he knew at once what it was.

He ran back to where the girl was sitting.

"They're coming!" he cried.

He pounced upon his gun, and took it out of the cover that had been put over it for the night. The magazine was kept full, and he had several cartridges in his pockets.

Anne Marie had risen quietly. Together, they returned to the place from which they had watched. Lying down among the low bushes, and hidden by the rocks and the saplings, they had no fear of being seen.

"The water is deep on that side; they will keep close to the shore. The nearest place where they will pass is far."

"Yes," replied Pierre; "it is all of a couple of hundred yards."

"Too far to shoot and make sure," she commented.

"Yes, though I could hit the canoe, all right. But I'm not going to start the shooting."

"They will go on as far as the next portage. It is ten miles down, and they will look for our tracks. Then they will hunt carefully to see whether we have passed by the other shore or farther up in the woods."

"And when they find nothing, they will come back," added Pierre.

"Yes, but they will be very careful. If they are sure they have passed us, they will know that we saw them go by."

Their conversation stopped, and they watched the canoe, which was nearing them swiftly. It kept in the shadowy water at the foot of the eastern shore, and came along without a sound. Simon was at the stern and the Indian in front, and, like machines, their brawny arms were driving the birchen shell.

Pierre was a good enough canoeman to be able to realize that those two were masters of their craft.

Shortly before reaching a place just opposite their little island, they stopped paddling, and the watchers felt their

hearts beating a little faster; but the two men only changed paddling sides and shifted their positions ever so slightly, and then went by the island, farther down, and yet farther.

When Pierre and the girl reached the lower end of the island, they just saw the men disappear around a far turn of the river.

Anne Marie went back to their little camp, followed by Pierre, and let Paddy loose, to his delirious joy.

"He can run now," she said.

Pierre, who had not yet eaten, began his breakfast. The tea was cold, but he warmed it up again and drank the bitter stuff with no thought that it was anything but hot and tasty.

"What's the next thing to be done, Anne Marie?" he asked.

"We can stay here, or we can start at once," she replied. "There is a place farther on, at the rapids, where there are many rocks. We might be able to hide ourselves and the canoe there; and if they return and do not see us, we will start down and hurry off while they are hunting for us farther up."

"It seems to me that we might just as well stay here and do the same thing," said Pierre.

"Yes, we are better hidden here," answered the girl; "but it is the only island on the river between these portages. They will suspect every such likely place. They might hide and watch it, then they would follow as soon as we started; or, if they had made sure that we were here, they might come at night."

"The dog would bark," suggested Pierre.

"Yes, but it would be we two against the two of them, and a fight. Some one will be killed. It would be a fight very near, where their guns are as good as yours. We had better go."

So once again they packed their things and were floating down the swift river. But this time Pierre kept the gun beside him, and the girl held her paddle, ready to help in case of need.

She sat in the bow, with her back turned to Pierre, keenly watching the expanse before her; and he, to his surprise, caught himself noticing how well poised the little head was upon her slender neck.

He dug his paddle in the water viciously, feeling very fit and well; and in less than half an hour they reached a broad, rapid place where the water was split into scores of little torrents by the boulders that everywhere dotted the stream.

From a high cliff on the left shore tumbled a tiny waterfall that splashed into the river, and a jumble of great rocks near this offered opportunities for concealment.

"That's the place, Anne Marie. It will be easy to hide there. It looks all right."

"No," she answered; "the water from that little fall is very cold; they will go and drink there. The other shore."

So the canoe was pushed over to the other side, perhaps a hundred and fifty yards across, and Pierre pulled it behind some great flat boulders. Paddy, to his great chagrin, was not allowed to wade ashore, and his indignation knew no bounds when his master, with a piece of string, made a muzzle for him so that he could not bark.

In a minute, however, after being well scolded he desisted from his attempts to remove it, and settled down sulkily in the bottom of the canoe.

"I don't think we are very well hidden here, Anne Marie," objected the young man.

"Not very well; but when they come up, the current is strong, and they will have to use their poles and pay much attention to their canoe.

"They will pass near the other side, to go by the little waterfall for cold water. Then they will start on again, and as soon as they get round the bend we will shoot down through the quick water.

"They will go on up-stream, hunt around for a day or so, and make up their minds that we have given them the slip. Maskoush wants to go on with their trip. They have not much time to get to the trapping-grounds before cold weather, so they will soon give it up and go on up the river."

"But the Manouan River is the real road for them, so that they may come down to the forks."

"Yes," she replied. "We must go fast now. If they decide to go by the Manouan, they will have to return to

their camp, and will have to make many journeys over each carry. We can go faster."

"Well, I hope it will work all right," said Pierre.

They waited long, both peeping from behind the great rock that sheltered them. Upon its top, in one place, grew a few straggling blueberry bushes which, in times of flood, must often have been covered with water, for they did not look prosperous on their slight foothold.

The canoe was partly in the water that passed, boiling but very shallow, under it, and was held in place by the stern, which they had lifted a little and wedged between two rocks. A push would send them flying down the rapid water and out of sight in a minute.

The Indian girl's eyes were riveted down-stream; she was motionless and untiring. As Pierre watched her he bethought himself of the behavior of wild things in hiding. He had many a time seen a wounded black duck concealed in weeds and rushes, or rabbits frozen into immobility while a dog or a fox was puzzling out a tangled trail.

He had noted all manner of beasts endeavoring to escape observation, and now this child of the *Grand Nord* revealed the attributes of the hunted things of the wilderness. The tincture of the same blood that was in his own veins had, to a slight extent, bestowed upon him some of those traits, but he realized that in him they were less marked.

His glance was diverted from time to time. He could not help following the flight of a shrieking kingfisher, or looking at the leap of a fish in the rapid water; and his attention was taken by some fingerling chubs or a band of minnows that swam by the big rock in the shade of the canoe.

He felt that the truly wild man or beast, whether hunter or hunted, observes everything except that which is of no importance; and that at certain times every faculty they possess becomes concentrated upon the one thing that means life or death.

"I'll never be a good Indian," he said to himself, as he realized that he had once more allowed his thoughts to wander, notwithstanding the fact that over there, down the river, were two men, one indifferent enough probably, but the other hungering for his blood and searching for him.

Yet, he felt a certain exultation that was mingled with the anxiety of this time. There was sport in it; it was a contest, a game of high stakes that was being played, and he was not conscious of any real fear.

Of a sudden the life appealed to him strongly. He felt that he had an inherited place in the Great North, that he was of it, that it called to him and thrilled every fiber of his being, and that every hour spent in the forest bound him more strongly to its greatness.

An hour passed by, and then another, until the sun was at midday, and still Anne Marie remained motionless, her feet in the canoe, her arms resting upon the great rock over which she watched.

Pierre had become cramped, and shifted his position a little from time to time, while Paddy was lying still, apparently understanding that something unusual was taking place.

He had stopped rubbing his muzzle with his paws to rid himself of the encumbrance, and was asleep most of the time.

Then Anne Marie suddenly pointed to a blue heron that was coming toward them, with long wings beating slowly and his snaky neck turning from side to side as he observed the surroundings.

"Maybe they are coming," she whispered; "the heron does not often fly at this time of day."

Before reaching them the great bird swerved a little, checked his flight, and went down among some rushes that grew on the bank, perhaps sixty yards away, where the rapid water entered the pool.

"I wish he had not gone down there," said the girl.

"You are right," assented Pierre. "If they come up they will surely scare him out of there, and if he passes over us and sees us, he will show them where we are."

Anne Marie nodded.

"Pick up a stone," she told him, "and send him away."

Pierre picked up a few stones from the bed of the stream, but before throwing them he looked keenly down-stream again. At once he crouched low in the canoe.

"They're coming," both said at the same time.

At the foot of the rapids, where the winding river formed a long, sinuous ribbon, they had caught sight of a moving object near the right bank.

"Only my head showed above the rock," he whispered. "They could not have seen me."

The girl nodded, and Pierre worked the cartridge into the barrel of his rifle.

"I see them again," said the girl; "they are coming around the little point. They travel fast. I wish that big bird was away. He is an evil thing."

"Yes, he's a windegoo," said Pierre.

Anne Marie crossed herself. She did not like the mention of the Indian evil spirit's name at such a time.

Now and then the canoe would become lost to view, but when it reappeared it was always a good deal nearer. They were clinging to the shore.

Simon was ahead this time. He was in the best place for careful observation. Finally they reached the swift water at the foot of the pool, and the half-breed arose and took a long look, while the Indian, with his paddle dug into the bottom of the river, held the canoe in place; then he squatted again, and they drove their craft into the boiling water.

But a few yards were covered before they had to take to their poles, discarding the paddles.

Suddenly the blue heron, with a clatter of wings, arose and came up-stream in a course that would bring him directly toward the two that were hiding. A few sweeps of his pinions, and he was over them. As they held their breath he suddenly rose in the air with a cry and changed his course.

Simon and the Indian were then nearly opposite them, shaping their course toward the little waterfall. Pierre and the girl saw them pause at once, their poles ground among the rocks at the bottom of the rushing water.

For a few moments they spoke excitedly, and the half-breed, still holding his pole firmly with one hand, shaded his eyes with the other and looked in their direction. They were well hidden, and he could see nothing; but he pointed toward the rocks, and began pushing the canoe in their direction.

"The gun," exclaimed the girl. "It is his life now, or ours."

"I can't kill a man that way," retorted Pierre. "They're coming to see what scared the heron. I'm going to show myself, it is time."

He rose in the canoe, showing his head and shoulders above the rock, with the gun pointed at Simon.

"Stop, or I shoot!" he called loudly.

The men were evidently somewhat taken by surprise; they stopped poling, and two or three violent words were uttered. They were at a distinct disadvantage standing up in their canoe, which a wrong move would upset.

Pierre was almost entirely concealed and had his rifle ready, while their weapons were lying in the bottom of their canoe, which began to drop back.

"Keep on up-stream, or I'll kill you!" shouted Pierre, who did not want them to get below him again.

Simon shook his fist at him, but obeyed, realizing that some part of his body was constantly seen by Pierre in the notched sight of his gun, and that, at this short distance, he could not be missed.

The iron-shod poles rattled again on the stones at the bottom of the river. They disappeared around a bend, while a supreme contempt came into the half-breed's mind for the man who had held his life in his hands and had been too stupid to shoot.

"He will land and try to get at us from the bushes," cried the girl. *"Vite, partons."*

The bend in the river beyond which the men had disappeared was hardly a hundred and fifty yards off, and haste was necessary. But the canoe was jammed rather hard at the stern between the two rocks, and Pierre had to jump overboard and lift it clear.

Paddy, seeing his master leap out, proceeded to follow his example, glad to stir after his long rest, but he slipped on the wet surface of the tiny rock upon which he had sprung and fell in the quick water.

In a moment he was being carried down stream.

"Quick, we must save him!" cried Pierre.

Like a flash they were after him, but the canoe grounded in passing over a

shoal. They pushed the canoe back with their paddles, in an effort to get to one side of the obstruction. Straining hard, they backed a foot or two, losing valuable time, and, with a hard shove, got into deep water again.

"It is my fault," cried the girl. "I was looking at the little dog, and did not notice the sunken rocks."

"Never mind," cried Pierre, "push on quick!"

From the shore, near by, a shot rang out, and a bullet grazed Pierre's body, passing through his coat. A second one followed at once, but, fortunately, also missed him.

The loud booming report told Pierre that it must have been the shotgun loaded with round ball.

He grasped his rifle, while Anne Marie, from the bow, sought to keep the canoe straight; but in the thick bushes he could only see the thin cloud of smoke. With one hand he tried to steer, knowing it would take some time to reload the muzzle-loader, and hoping that the Indian would not shoot.

But the sharper and less powerful report of the Hudson Bay Company's gun rang out, and the bullet struck away beyond them in the water.

Something then moved in the bushes. The half-breed, wanting to get nearer for a shot, had left the cover, and came running to the shore. The rifle in Pierre's hands gave the spiteful bark of its smokeless powder, and the half-breed, after two or three more steps, pitched heavily forward and rolled over on his side.

Then it was that the wild nature of Anne Marie came uppermost. She uttered a cry of joy.

"Quick, get at him!" she cried.

"Nonsense!" Pierre shouted angrily. "Look out for the dog!"

Paddy had fortunately drifted, half-drowned, near a bit of sandy beach, which he had managed to reach, and stood there shivering. He was picked up, and his muzzle was taken off at once. They jumped ashore then, and Pierre stood irresolute and nervous.

"I never shot at a man before," he said.

"Let us go and see," proposed the girl.

"What about the Indian?"

"I think Maskoush wants no fight. He shot because Simon ordered him to. Did you not hear him cry out? But the bullet went far above us. Little Bear shoots well; best shot in Pointe Bleue; he shot high on purpose. I will call out to him."

Anne Marie called out loudly, and an answer came. Stepping carefully, they advanced, concealing themselves as much as they could, and soon Anne Marie threw herself down behind a rock, while Pierre instinctively followed her example.

The dog, now fully recovered, ran forward and began to bark loudly.

"He is there, Simon, half a gunshot away. He was sitting up. Come a little farther. There—you can see him. Aim the gun at him, and I will speak. See, his gun is on the ground, too far for him to reach."

She shouted to Simon, but he made no answer. The two then advanced, and saw that he held his head in his hands, as though suffering great pain. At this moment Maskoush came up.

"Put down that gun," shouted Pierre, with a significant motion of his own rifle.

The Indian laid his gun down at his feet, appearing to be very indifferent, and Anne Marie went up to him and possessed herself of the weapon.

Simon was recovering from his dazed condition, and loudly, from the bottom of his heart, consigned them all to perdition.

"Stop that!" cried Pierre indignantly. "Where are you hurt?"

"I am not hit," answered the half-breed contemptuously. "After you shot, I caught my foot between two stones and fell. I hit my head hard or I would have been up again, and I would have killed you, *maudit.*"

"Well, I'm just as glad it happened that way," answered Pierre, who saw that blood was trickling from the man's head where it had come in contact with a stone.

"What shall we do now?" Pierre asked the girl.

"Smash both their guns and leave them where they are," she replied contemptuously.

"But if they have no guns, they will have to go back to Lac St. Jean; they

can't go trapping without them," objected Pierre.

"The *monsieur* says well," muttered the Indian. "We must have the guns."

"Look here, will you swear to leave us alone this time?" asked Pierre of the half-breed, who had risen unsteadily to his feet.

"Nothing—I will swear nothing," he answered furiously. "You can strike hard with your fist, but that is not our way of fighting. You have the gun and can shoot me if you like, but I swear nothing.

"You are a coward. You can speak to a man with a gun in your hands, but if you did not have it you would cringe before me. You are going away with that woman.

"She would have been mine if you had not been here. You are a thief! You steal my woman! You would be afraid of me but for your gun! Yes, afraid! For I am a man, and you a stealer of women!"

Pierre, unable to stand this any longer, threw his gun in Anne Marie's hands and threw himself upon the half-breed, who, like a flash, pulled out his knife.

Anne Marie called out a warning, but the men were already locked together. Pierre had succeeded in seizing Simon's wrist in his left hand, while his right arm was twined around the hulking body.

The struggle for the possession of the knife was paramount. They twisted and pushed, and stumbled over the rocks, and panted with their exertion, while Paddy kept circling around them, barking and snarling, and looking for a chance to bite.

Once his fangs sank in the half-breed's boots, but the heavy leather protected him.

Twice Pierre was nearly pushed over on his back, but succeeded in keeping his footing until the half-breed suddenly disengaged the arm he had managed to get around Pierre's neck and seized him by one thigh, which he wrenched upward.

With his full weight bearing upon the young man, breast to breast, they fell over, but Pierre, by a vigorous twist of his body, escaped the full shock of the fall. At the same time, with his right hand, now free, he aimed a fearful blow at the half-breed's jaw.

They fell upon their sides, neither one underneath, and Simon's elbow struck upon a stone and his hand opened, dropping the knife.

Like a tigress, Anne Marie pounced upon it and sent it flying in the rapids. But now Simon got both his arms around Pierre's body, and his great strength told.

The pressure was more than a human being could stand, and the young man felt his breath becoming shorter. A fierce pain invaded his chest like the stabbing of great knives, and he knew not whether it was a harbinger of death.

But the spirit of fighting forebears was in him, and he struggled on. Somehow his right arm got loose and, with the last of his breath, while both were lying on the ground like snarling hounds, he rained blows upon the half-breed's face, who loosened his grip around Pierre's body.

With another struggle, the young man wrenched himself free, and in a moment they were both again standing, watching each other, the fury of their faces nearly gone.

Their panting breath, the half-breed's bloody head, their haggard looks, their eager, wolfish eyes, made them look like brutes bent on slaughter.

Simon thought he saw a good chance and threw himself upon Pierre, seeking to catch him low, but he forgot the ready fists of his opponent, and as he dashed forward he was met with a fierce uppercut that staggered him.

In a moment Pierre was on him like a fiend and back-heeled him, and the huge bulk of his enemy was stretched under him.

The massive throat was in the grasp of his left hand, and his right fist was uplifted for a blow as the half-breed gurgled:

"Quit, for the love of Heaven!"

Pierre arose, his clothes torn and soiled, his chest heaving as if the breath would never return to it in peace. The filth of sand and moss and grit and sweat was upon him, and his limbs shook with the exhaustion of his nerves.

The weariness of age-long fighting seized him, as if he had gone through all the fierce turmoil that may be compassed in a whole life. But when Paddy threw himself upon the half-breed he ordered

him off, and pulled him away by the scruff of his neck and bade him be still.

During this time Anne Marie, excepting when she had taken away the knife, stood still, watching the battle that might mean her life as well as Pierre's.

Maskoush followed the fight eagerly, with the lust that comes to men who see great strife, but did not offer to take any part in it, realizing that the girl, with the gun in her hand, was dangerous.

For a minute they were silent, as people are who have been through fierce scenes of action. Finally the young man spoke:

"We have had the fight. It is over. I want to go back to Lac St. Jean, and Anne Marie goes with me. In the rapids I could have killed you, and again just before this fight. Among my people men fight great fights, and they shake hands after, and it is forgotten.

"I will shake hands if you wish, and you will swear to leave us in peace. If you are not willing to do that you will compel me to break your guns to pieces and to burn your canoe before I go, so that you cannot follow. Now, will you go in peace and let us alone?"

The half-breed looked at him, then at the girl, and at his companion.

"I am beaten," he finally said. "I will not shake hands with you. What do you want me to swear?"

Pierre, still short of breath, seriously, under the spell himself of the strange wildness of the scene, began to draw from the wealth of his imagination a long and complicated oath that was listened to in awe by all the others.

"Now you have heard, and you will repeat after me," he said.

The men had instinctively removed their caps, and Simon began the oath that was to bind him.

Upon his prospects of future salvation, and upon the rest of nearest and most remote relatives and ancestors in and out of purgatory, he obligated himself to all manner of future punishment should he break his oath to go back up the river to his camping-grounds, without stopping or returning, until the spring should come.

This he did in the name of the Lord and all the saints. The girl and Maskoush looked awed to hear him take so solemn an oath. When this was over Pierre bade the girl repeat it to Maskoush in his own language, so that he should well understand it, as he spoke French but ill.

Crossing his hands upon his scapulars, the Indian repeated the binding words also, looking scared at the dread formula.

"Now, will you shake hands?" said Pierre.

The half-breed shook his head.

"I will. You brave man," said the Indian.

A hearty handclasp was exchanged by the two men, and then Pierre and the girl quietly returned to their canoe, followed by Paddy.

They said nothing as they entered their frail craft and pushed off. They paddled a mile or two before speaking.

"Look here, Anne Marie, stop paddling," said Pierre suddenly, realizing that she was working too hard.

As always, she obeyed without a word, and sat in the bow, facing him, and only then he realized how bad she looked. There were great black rings under her eyes, and she was thinner, and he understood what a strain she had undergone during these days and how she had suffered.

"Will they keep their oaths, Anne Marie?" he asked.

She looked scared at his question.

"Keep them," she answered. "Yes, how could they do otherwise? A man might kill, and he might rob, even rob a *cache,* but how could a man break such an oath?"

Pierre nodded his head in assent. They were savages, and the forms of religion were, as ever with them, of greater import, and bound them more powerfully than its spirit.

As he kept on paddling Pierre grew aware of a constantly increasing weariness. He was sore all over, and his chest, that had undergone the bearish hug of the half-breed, pained him badly.

Over his body there were bruises resulting from coming into contact with stones while struggling on the ground, and the excitement of it all had left him nervous and, in truth, somewhat disgusted.

"We were like a couple of brutes," he suddenly thought out aloud.

"You were like the bulls of the *original,* the moose," spoke the girl; "and it

was fearful to see, but a great fight, a fight of strong men, for you are brave and strong and a man from among men."

Pierre looked at her curiously, wondering whether she meant what she said. Her great eyes were gazing at him frankly, and he wondered at feeling comforted by her words, by the admiration implied.

Their common danger, their few days spent together, seemed to have thrown a slender bridge over the chasm that separated him from that little creature, whose dusky skin, whose very rags and poverty could not hide a personality strange to him, but full of interest.

He felt tired, but kept on, doggedly, his exhausted muscles laboring mechanically. His efforts caused the canoe to gain but slightly over the swiftness imparted by the current. His mind was also weary and his thought stopped coming, until he toiled like an automaton.

CHAPTER VI.

A Hospital in the Wilds.

IT only took them a little over an hour to reach the next portage. However confident they were that pursuit was no longer to be feared, it was best to take every precaution. Anne Marie took the gun and watched the river while Pierre unloaded the canoe. But as soon as he had done this, and had lifted his little craft clear of the water, his weariness and soreness overcame him.

"Look here, Anne Marie," he said, "that fellow mauled me dreadfully, and I'll have to take a bit of rest."

Under some little birches near the landing he lay down upon the mossy soil and mechanically began to fill his pipe; but exhausted Nature had her way, and he fell asleep, dropping both pipe and tobacco-pouch.

Anne Marie sat near him, her chin in the hollow of her left hand, the elbow resting upon one knee, while in the other hand she still held the rifle.

Every minute or two, without changing her position, she glanced up the river; but during the remainder of the time her gaze was fastened upon the young man.

To her he was a great being, something akin to the gods of her ancestors, possessed of strange powers, fierce in battle, and yet so mild in manner, so lacking in the real knowledge of what to her was life itself, that she looked at him in awe. He seemed to belong to some race of which she had never before heard.

Then she remembered what the Manitou-ilno, the sorcerer, had told her away up in the north, and her heart seemed to beat faster.

She understood that Pierre was exhausted with fatigue, with the blows and hugs he had borne; but she wondered why he had seemed nervous, and at the disgust that seemed to have taken possession of him after the fight.

The girl watched him long, until hunger awoke him, and he smiled at her.

"I had a little nap," he said.

"You have slept two hours," she replied, smiling also.

He jumped up, and in so doing realized once more how bruised he was; but the great weariness had left him, and now it was but a matter of a little pluck.

"Boil the kettle, Anne Marie," he told her, "and in the meanwhile I'll make one journey."

He lifted a great load to his shoulders and went down the portage, which was quite a short one; and repeated the trip four times, until he had carried everything over excepting the rifle and the few cooking utensils the girl was using.

They sat down and began to eat, Pierre with exceeding appetite, but the girl half-heartedly. She gave most of her food to Paddy, who kept turning around them expectantly, as usual, during mealtimes.

When they had finished she arose, and Pierre took the rifle and the cooking things, starting again down the carry, and followed by the girl. He did not notice that she was walking with much difficulty, as if in great pain.

So they started again, on a long stretch of smooth water, some eighteen miles long, to the next carry, not expecting to make the whole distance before night, and intending merely to go as far as possible until it should be time to camp.

The unending digging into the water began again, and they traveled on and on in silence. Anne Marie, sitting in the bow, gradually sank farther down at the bottom of the canoe, until her head rested upon one of the bags.

She no longer watched the river; her eyes closed, and she appeared to become indifferent to her surroundings. Pierre would have thought her asleep had she not kept her hand upon the injured side. From time to time she moaned.

"Do you feel very badly, Ou-mem-eou?" he asked.

She shook her head, unwilling to acknowledge her pain; and he continued to paddle, stopping now and then for a swallow of water or to light his pipe. The river had to be crossed from time to time, to make short cuts at the windings, or to take advantage of swifter water, or in order to avoid the shallow sand-bars that are common to all the rivers of that region.

The great northland was ever opening and closing behind them, while the sky on their right showed the changes of hue that bespeak the coming night.

Pierre began to look carefully along the bank, watching for a good place to make camp.

By this time he had his second wind and was working well, in a dull, mechanical fashion. The dripping of the paddle tinkled beside him, a pleasant, companionable sound, and the dog looked at him wistfully.

Nearer and nearer the poplars and birches, the firs and spruces kept on coming, and then marched past to make room for others. Yellow sand-banks grew to the tender green of rush-lined shores, and these gave way to rocky places; and again to others where the gaudy tints of deciduous trees, touched with autumnal gold and crimson—with somber backgrounds of evergreens—came right down to the water's edge.

Little shrill-voiced sandpipers made circular flights from rock to rock ahead of him; and once he passed a monstrous horned owl, perched on a great hemlock, awaiting the time for his silent flight in the dark forest.

The sunset was a flash of red and gold tinting the edges of dark clouds on the horizon when Pierre noticed, in a deep indentation of the shore, a level spot with a tiny brook running down into the river, and plenty of dead trees for firewood. With a sweep of his paddle, he turned the canoe and led it to a tiny sandy beach.

Paddy, as usual, jumped out first in his delight at being able to stretch his legs once more; and Pierre followed, holding the canoe for Anne Marie.

When he called her, thinking that she was asleep, she did not answer, and he pulled his craft a bit higher up on the sand.

"What is the matter, Anne Marie?" he asked.

She shook her head and made an effort to arise; but fell back helpless. Pierre lifted her out and placed her carefully upon a mossy spot.

He put the bundle of blankets under her head for a pillow, and, kneeling beside her, felt her pulse and looked at her anxiously.

She was very wan and pale, excepting her cheek, where red spots were burning. She breathed very hard, with short, gasping respirations. Her hand was ever on the side that had been hurt.

"There must be something the matter with that lung," he told himself. Then it was that he longed for greater knowledge of medical things, and considered the situation with great anxiety.

It was too bad. He wondered whether she was mortally ill. During all this time she should have been quietly resting, instead of undergoing the hardships of the past few days.

Perhaps rest would get her well again. But a few hours ago he had thought that all was serene, that all troubles were ended, and now it seemed as if they were just beginning. He had felt full of confidence before this, but now looked at her with all the helplessness of a strong man before a weak and suffering woman.

"I'd better get to work," he muttered.

The display of energy gave him some surcease of worry. He rapidly put up the little tent, tearing up some shrubs to make a level place and knocking hummocky spots with the back of his ax to make a smooth floor.

Then he spread his waterproof sheet on the ground, after it had been covered with a thick layer of balsam-boughs. Taking the blankets from under the girl's head, he replaced them with a bag, and spread them under the tent.

With the dusk of coming night there was a flurry of strong wind, and the leaves began to fly over the river, while

overhead black clouds were traveling fast. Out upon the river dark flaws struck the surface, and the chilly breeze made him put on his coat. The autumn in these regions is but a short transition from summer to winter, and he realized that the cold days were coming.

He cut down several dead trees, and made ready a goodly amount of firewood. Thinking that the weather might turn to rain, he gathered from the trees severals armfuls of birch-bark, in order to have plenty of kindling material on hand, and placed it under the tent so that it might remain dry.

It was nearly dark by the time that he had his little fire lighted and his kettle boiling. Finding that he still possessed three cans of condensed milk, he opened one of them and diluted some with hot water, thinking it might be a good drink for the sick girl.

He made her take it, holding up her head in the crook of his left elbow; and she drank it, obediently, between her gasping respirations, but without seeming to relish it much, and was evidently glad when she was allowed to recline again.

But it was necessary that she should be taken to the tent, and he lifted her as gently as he could, while she feebly protested that she could go by herself.

He made her as comfortable as he could, and then hurriedly ate a little smoked meat and a large pancake that he cooked in his frying-pan, resolving that on the morrow he should make bread.

Now that he might be detained by the girl's illness, the state of his flour-bag had become a matter of some concern. It contained about fifty pounds at the start, and he had used ten or twelve pounds at least.

That which remained would not last very long for two people and a dog. At the rate of two pounds a day for the three, there was only enough for about three weeks. The other provisions were about at the same rate, though there was rather an excess of tea and tobacco, which he had taken in view of possible gifts or exchanges with Indians.

Fortunately, he had plenty of moose meat, and, by the light of his camp-fire, he took it out of the bags and inspected it carefully.

One piece was rather mildewed, and he threw it away. Then he made a great *boucane* and smoked the rest of it strongly again.

On the morrow he would take a careful survey of the provisions. It was evident that the girl would not be able to travel for some days, even if her condition had improved a good deal by morning.

A period of rest might do a great deal for her.

His activity and the appeasing of his hunger caused him to see things in a more favorable light. Somewhat against his better judgment he persuaded himself that Anne Marie's troubles would prove but a temporary matter.

His pipe once finished, he gathered up all his belongings that might be injured by rain and placed them under the tent. He had made a roaring fire, just for the pleasant companionship of the blaze, and, with the flaps turned up, the tent was well lighted inside.

Paddy had gone to sleep curled up against Anne Marie. The tent had no opening for the stovepipe, and he planned to make one and line it with pieces of tin flattened out from some of his cans.

Then they would be able to use the little stove in the tent, for there was no doubt that the cold weather was coming soon.

He asked the girl if she would have more milk, or any other food, but she refused, gently shaking her head. She seemed to be in such pain that he searched through his little case of medicines. Finding some Dover's powder, he gave her a couple of tablets, which she took with the sublime faith of the savage in the white man's medicine.

They appeared to quiet her, and after a while her breathing became more regular, and she appeared to fall asleep.

Pierre decided that he had earned his rest. His sore muscles rebelled at every move, and he was glad to roll himself in his blanket after closing the tent flaps.

Just then he heard the rain-drops beginning to patter on the tent walls; and the faint hissing of the dying fire outside, as the shower began, was the last sound that he noticed.

In a moment, as it seemed, the world became a blank, and he was sound asleep,

while, outside, the rain gathered strength and soon fell in torrents with occasional lulls, during which the wind blew harder and shrieked through the tree-tops, coming from the northwest, and bringing with it hints of snow and ice.

He had told Anne Marie to awaken him in case she needed anything, yet, though the girl slept but little, she was suffering less, owing to the opiate he had given her, and bore her pain quietly, without disturbing him.

She was a stoic, this girl of the northland, and belonged to a people who pay small heed to bodily ills, which must be borne without complaint at night, for the rest of others may not be broken on account of grief or suffering.

In her disturbed consciousness, the man who rested near her took the proportions of some strange and visionary being, with a manner that was new and odd and proclaimed him to be of a different race—of a kind far remote from her own, like the strange beings pictured in the images of saints and other people whom one must worship without pretending to understand.

He was masterful and very strong, and yet sought advice from her in a way that seemed hardly fitting, and showed respect for her opinions, as if she had not been a mere woman, a carrier of burdens, one inured to the idea that man is the master and king, and woman but his slave.

His deference to her did not seem like the normal conduct of civilized beings; for she knew but little of the life in the places where the forest exists no longer. To her innocent mind it rather appeared as if constituting a quality inherent to that one man who, in that as in other things, was exalted beyond all others.

Nor did it seem to the girl that the two of them, traveling thus together, formed a strange and unconventional partnership. She was accustomed to the promiscuity of Indian tent-life, and saw nothing in it to cavil at.

It must be said that Pierre, on his part, had hardly given the matter a thought. He had been led by a kindly and impulsive nature. Things had adjusted themselves without any planning on his part, and merely resulted from the tragedy ever present in the northern life.

To him she was merely an Indian—one of a race so remote from him that he considered himself as standing apart and separated from her by a line of cleavage so strong and so deep that the gap could never be bridged.

She was handsome of her kind—a strong, lithe being, and pleasant withal—a companion like Paddy, a source of worry and concern, as the dog would have been if hurt—but not the tender and gentle thing his mind had evolved as a possible object of love and care.

Pierre awoke just before dawn, having slept many hours. As he rose to his knees to fold his blanket, Paddy's tail beat a tattoo, and he whined a greeting which only ceased after his master had patted his head.

The girl opened her eyes quietly, without stirring.

"How do you feel, Anne Marie?" he asked.

"I have less pain," she answered.

"Did you sleep?"

"I did not sleep much. Sometimes I did not know if I was asleep or awake. I saw many strange things. My head feels heavy."

"That's the opium," he decided.

Her pulse seemed to him to be very fast, and her forehead was cool, but the hand he had taken from under her blankets was moist and hot. She was breathing fast, and was lying upon her injured side.

The rain was coming down heavily upon the tent, but the wind seemed to have gone down. It was rather dark yet, and in the mist, as he lifted up the tent-flaps, there was but an indistinct suggestion of surrounding objects. They appeared as if wrapped in a fog through which somber masses were only hinted at.

"Do you feel hungry?" he asked her.

"Water—please give me water," she replied.

Pierre's conscience smote him. He had allowed her to remain all night without anything to drink. Her fever must have made her very thirsty, and yet she had been unwilling to disturb him.

He took up his little teakettle, and went out in the rain, toward the brook. The sky was becoming of a lighter gray in the east. During the night the tiny stream had grown into a brawling burn,

and the water was very muddy. He went to the shore for some river water.

Anne Marie drank like one devoured with thirst, and at intervals, made necessary by her short breathing, she half emptied the kettle. With a sigh of relief, she put it down, and Pierre went out to fill it again.

When he returned, she was sleeping, and he placed the vessel near her. Sitting down at the entrance of the tent, he watched the growing of daylight. It was cold, and he wrapped his blanket around his shoulders.

Paddy left the girl's side and sat beside him, shivering. This soon grew too dull for the dog, however, and it went back to sleep.

A wonderful loneliness, such as he had never before felt in the forest, came over him. There was something inexpressibly dreary in the falling rain and the misty outlook.

If he had been alone, he would have prepared his breakfast, thrown his cape over his shoulders, and started out, not heeding the rain any more than do the highlanders from whom he had partly sprung.

It would have been life, motion, effort. But this was an inactivity that gradually entered his soul. He was in a manner trapped, knowing not when the release would come.

He was here to-day, and to-morrow would see him here, and the next day, perhaps.

If the girl should die, he would have to bury her under a tree and leave her there in the coming storms and snows, and make his way back alone, with the feeling that somehow he had been given something to guard and protect, and had failed in his duty.

He should have gone farther the day before, for then he might have camped near a waterfall, and there would have been the life of the rushing waters instead of the dreary monotony of the broad river, so sad and somber under the great pall of the falling rain.

He replaced the kettle he had put by the girl by a full cup, and then brought a charred end of a log in the tent and split it up into dry sticks. After several trials and the expenditure of a good deal of birch-bark, he managed to light a fire to leeward of a big rock, and put on the kettle to boil.

The routine of these simple preparations, which commonly gave him pleasure, seemed irksome now. It was a disagreeable duty—a sort of penance for a man of action.

Anne Marie took a little condensed milk, while he had his tea; but she looked longingly at his cup.

"Do you want any?" he asked.

She nodded eagerly, and he gave her some, which she seemed to enjoy. She refused any other food, however, and he ate without much relish, tossing bits of bread and meat to the dog, who was hungrier than his master.

This modest repast over, he took the flour-bag out of the waterproof sacks and stood it on its bottom in the tent. Rolling over the edges until they were within a couple of inches of the level of the flour, he shaped the white powder into the form of a wide funnel, into which he poured some water. He began to knead the mass, adding more water, and pushing in more flour from the sides of the bag until there was enough dough.

Then he worked in it a spoonful of baking powder, and made a big, flat, round loaf. Lifting it out of the bag, the remainder of the flour was left perfectly dry. He repeated this process three times.

Near by, upon the sandy beach, he built a roaring fire with big logs; and after it had burned some time, he dug out the sand from beneath the brazier, on the leeward side, until he had excavated a little trench.

At the bottom of this he deposited his loaves, and simply shoveled the sand back upon them. With a pole he pushed back his burning logs over the trench and added more, keeping up a roaring fire for about twenty minutes, heedless of the rain that fell upon his shoulders.

Then he shoved the blazing mass away and dug into the sand, finding his loaves thoroughly baked. They were quickly carried into the tent, to keep them dry, and then Pierre scraped them with a knife to remove the very small amount of sand adhering to them.

Whenever he came into the tent he asked the girl whether there was anything he could do for her, and how she felt, and

always she made as little as possible of her trouble and tried to smile. But the rapidity of her respirations, the moans she uttered when she thought he could not hear, her quick pulse and hot, dry skin showed that she was very ill.

He chanced to remember that people with pneumonia spat a reddish brown substance. He had seen it in the hospital, and decided that she was not suffering from that disease. He made up his mind that it was a pleurisy, and was rather pleased with himself at having made a diagnosis; and then he also had an impression that it was not as dangerous as pneumonia, though people certainly died of it sometimes.

It was important to take stock of the provisions, and he unpacked all the bags in the tent and looked over the contents. There was the flour, from which he had just taken about six pounds for his loaves, and a little more than half a can of baking powder.

The moose meat amounted to over eighty pounds, without bone. There were half a ham, four pounds of bacon, about eight of fat pork, three or four of salt butter in a tin can, and about four pounds each of oatmeal and rice, and perhaps two pounds of beans.

There was a good deal of salt, as he had taken a lot in order to prepare a scalp if he killed big game. He also had some pepper, half a bottle of pickles, three cans of condensed milk, one of them freshly opened.

He also found about six pounds of sugar and four of tea. The ammunition amounted to two boxes of rifle cartridges holding twenty each. From one of these several had been expended. There was also a box of .22 cartridges for his little pistol, used for partridges.

The total footed up to about a hundred and seventy pounds of food, which, at the rate of six pounds a day for two healthy adults, would last about four weeks. Then it was certain that for some days to come the girl would not eat very much.

"Anne Marie," he asked, "how long will it take us to go from here to the first falls of the Peribonca?"

"About fifteen days—not more," she replied.

There was plenty of leeway if the girl did not remain ill too long, and he felt much relieved. At the same time he decided that he ought to neglect no opportunity of procuring food in case they were detained.

"If you don't mind my leaving you," he told the girl, "I think I'll go and try to get some fish."

Anne Marie looked at him in some surprise. It seemed so strange to hear a man asking permission from a woman to do as he pleased.

"All right," she answered, nodding.

On the opposite shore there was a long bank lined with reeds near which he thought that pike would lurk. Taking a spoon and a hand-line with him, he pushed off the canoe and began to troll.

The fish did not bite well in the rain, and, after several hours' paddling, he only had three rather small ones — the largest under four pounds.

This was tiresome, and he decided that he could come back at any time and get more. Besides, Anne Marie, perhaps, needed him. He returned to camp and cleaned his fish. The largest he split front and back to the tail and hung it over the smoke. The rain, which had stopped for a time, began again in a steady downpour.

The rest of the day was dismal. He sat down in the tent wishing for a book. He had never before wanted to read in the woods. From time to time he felt the girl's pulse, and wondered whether any of the few tablets he had in his medicine-case would be good for her.

He talked gently to her, but soon desisted, as it seemed so hard for her to answer. She had to make an effort in order to speak. It was better not to let her do so. Paddy was a source of comfort; but within the narrow limits of the little tent there was no room for romping, and with an idle dog's astonishing capacity for sleep, he slept nearly all day curled up beside Anne Marie.

Pierre smoked innumerable pipes, and it gave him rather a headache. He was actually grateful when the girl manifested a desire for a little water, and he constantly offered her milk or tea. He idled over his midday meal, and conscientiously made it consist nearly entirely of fish, so as to save provisions.

The afternoon went by, full of weary

longing for something to do. More fish for supper made him hope that he would not have to live very long on an exclusive diet of pike.

The night came slowly; and when it was dark he felt like lighting a candle, but made up his mind to be saving. He had a big fire outside the tent, and enjoyed its comforting glow. When at length he rolled himself in his blankets he slept poorly.

Anne Marie complained often in her sleep, and each time he whispered a query to find out if she wanted anything.

Once he was awakened during a brief interval of sleep, and heard her muttering something in the Montagnais language. He wondered whether she was dreaming, and the fear came over him that she was delirious. He touched her forehead, and she awoke, shivering.

"Oh," she said in a low voice, peering intently in the dark, "I dreamt that Kuick-wa-tiao, the Carcajou, was here."

(To be continued.)

"THE IMMORTAL J. N."

An Unfortunate Eccentric, Whose Affliction Was an Unsound Mind and Whose Recompense Was an Innate Nobility and Dignity of Soul.

PROBABLY many of our readers were reminded of a familiar and eccentric character when reading a recent number of the "Observations of a Country Station-Agent." Our attention was called to him afresh by the courtesy of Mr. C. W. Bales, Springfield, Illinois, who sent us the pass reproduced herewith.

The "Immortal J. N." was no fictitious character, neither was he an insignificant one, so far as personality is concerned. Although overtaken by the misfortune of an unbalanced mind, he retained the force of a wonderfully magnetic character.

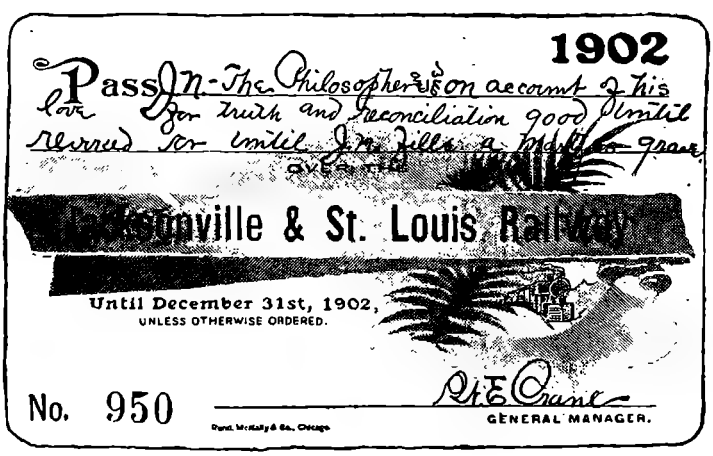
He was known all over the country as the "Prince of Dead-Heads." In enlightening us as to the personality of the "Immortal J. N.," Mr. J. E. Smith, the author of the article in which he was mentioned, says:

"He traveled continuously and paid no car fare or hotel bills. He styled himself the 'Apostle of Truth—the Great Reconciliator.'

"He employed the vague terms of 'Lifting the Veil' and 'Removing the Pressure,' to indicate the occult power he held, and which he believed he could employ at any minute at will, either to the blessing or confusion of mankind.

"His real name, as I recall it, was Jacob Newman Free, and his home was somewhere in Ohio. As a young man he studied law, and was a scholar of promise. Later, his mind became affected, and his mania was to travel.

"His hair grew long and hung about his shoulders. His cūlture was always in evidence. He was tall and straight and impressive. His memory of faces and names was marvelous. Wherever he went he knew the people, and always manifested a sincere interest in their welfare.



FACSIMILE OF A PASS ISSUED TO "THE IMMORTAL J. N."

"He was admitted to homes, and was tolerated and honored everywhere. His courtesy, majesty, and force were his passports.

"As a rule, hotel men treated him as a guest, and I think railroads provided him with passes similar to the one now in your possession, the passes usually indicating that they were given for some high-sounding consideration. His wrath when asked to pay bill or produce a fare was grand and dignified, and quite overwhelmed the supplicant.

"His acceptance of a favor was with such dignity that all who administered to him were glad and honored to be able to do so. He died a few years ago, just before the anti-pass agitation. Naturally we attributed all that followed to 'J. N.' as having at last 'Lifted the Veil,' or 'Removed the Pressure.'"

In a recent issue of the Pittsburgh *Dispatch*, the following reference was made to his library:

"Hidden away in the most unlikely place in the world, a shabby, wofully prosaic little cottage in a country town, is a library so unique and valuable that to wander among its ancient tomes and fondle their ponderous clasps and worm-eaten pages would plunge the ordinary bibliomaniac into what Robert Louis Stevenson called 'fine, dizzy, muddle-headed joy.'

"Since there is no real reason for preserving the secret forever inviolate, let it be told that the village is McCutchenville, in Wyandot County, Ohio, and the owner of the library is Mrs. Elias Cooley. While this name may not convey any special significance, Mrs. Cooley is the sister of the late Jacob Newman Free, better known as the 'Immortal J. N.,' and the last surviving member of an extraordinary family.

"To-day his splendid library is piled in confusion in the little McCutchenville cottage in mute testimony of his erudition. In the old home one side of the front room from floor to ceiling was lined with volumes, and the table in front of the shelves was heaped with them. The collection numbered about one thousand volumes. They are printed in many languages—in Latin, Greek, German, Hebrew, Sanskrit, and Chinese. Some of them date as far back as the middle of the sixteenth century. These are stanch old tomes, but the worms have bored their neat little tunnels quite through the heavy bindings of wood and leather. Some are pierced in this way from cover to cover, and a few are gnawed by the rats.

"One book, dated 1570, and written in Latin, contains the works of Eusebius, Bishop of Cæsarea, in Palestine. The covers are a quarter of an inch thick, and covered with leather, and the front is closed with metal clasps. Another, similar in date and binding, is devoted to the works of Chrysostom. A sixteenth-century Bible is over two feet long. The front cover and the backs are torn off and reveal the method of binding. The works of Justin, the philosopher and martyr, printed in Constantinople in 1686, are a curious commingling of Latin and Greek, and are abundantly interlined with notes in the same language."

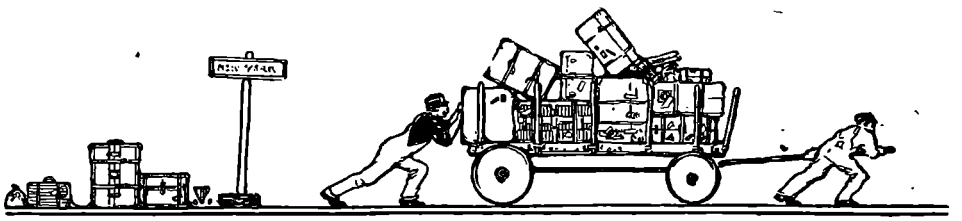
TRANSPORTING MISCHIEF.

Half a Billion Pounds of Explosives Are Carried Annually by the Railroads with Scarcely an Accident.

COLONEL W. B. DUNN, chief inspector of the American Railway Association, recently delivered an interesting address before the Society of Natural Sciences, on the use of explosives.

Some years ago, according to the speaker, dynamite and other high explosives were treated as ordinary freight, but when commercial uses brought the production up to 500,000,000 pounds a year, it became necessary for experts to solve the problem of safe transportation. Nowadays there are 5,000 cars of explosives constantly in transit upon the railroads of this country, so that according to the law of averages a traveler should pass one in every fifty miles of a journey.

That the problem has been solved, Colonel Dunn said, was evidenced by the rarity of accidents from these causes. Inspectors are at work constantly watching the packing and shipment of explosives to see that all regulations are obeyed. The speaker asserted that accidents which occur in the handling of these explosives are due to ignorance.



Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 25.—One Cannot Always Tell Just Who Constitutes His Public, When He Tries to Inject Some Superheated Kindness and Good Cheer Into His Daily Routine.

A GREAT railroad of the West recently installed a systematic course of instructions, teaching employees the "etiquette of travel." It coolly calculates that courtesy aids the road to get and hold business. It argues that passengers at stations or on trains are usually nervous, ill at ease, and really need special attention, which, in turn, they will appreciate to the extent of remembering and recommending the road.

The first pamphlet of instructions opens with the qualifying admission that "affability is a talent; it is also in some cases a genius. One can be cultivated; the other can be acquired only by great effort."

Of passengers in general it makes this observation:

"A large percentage of passengers on a train are in a more or less abnormal condition, ranging from uneasiness to positive hysteria or nervous prostration. Conductors can call to mind many cases where such conditions have become manifest by passengers attempting to jump from the train. In many cases passengers have succeeded in doing themselves bodily harm. This semidementia begins when the patron arrives at the ticket-window, and remains until the journey is ended, and normal conditions are restored by rest and quiet. . . . A kind word to those in the waiting-rooms, and who may be too timid to ask questions, shows thoughtfulness, and is received with appreciation. . . . A few minutes spent among the occupants of the waiting-room may bring dollars to the company in return."

It is not the purpose of the writer to seriously discuss the value of courtesy. He has had a close range, hand-to-hand conflict with the "dear people," covering twenty-five years, and he has modified and qualified his earlier opinions.

If all ticket-agents and conductors were born gentlemen, and all the men and women who travel were genteel, well bred, and considerate, there would be no "courtesy" problem.

Everything is comparative. If all men were rich, there would be no riches. If all men were polite, there would be no politeness.

But, alas! Sixty-six and two-thirds per cent of us are rude, unpolished, and impudent from the day of our birth.

Then, we do not reach the high passenger jobs on the railroad until we pass our fortieth year; and all the distance we have fought our way over a rough-and-rugged course, and we arrive somewhat ruffled and gnarled.

As an example of this, I took a good look at "Buck" Jones.

Buck runs our package local. Buck shaves and trims his hair every time Halley's comet visits the earth, and probably won't take a bath until he falls into the creek. Buck has an ultramarine vocabulary that fits every angle of a local freight run. Only ten words in all — none of them in the dictionary or book of rules. Used singly, or in combination, they cover the whole range and all extremes of human feeling.

Some day, in the lock-step, forward march of a conductor's life, Buck will be next up for a passenger run. He knows how to do his work and run a local freight, but can he be civilized? That's the question.

After a man has put in twenty years handling barrels, boxes, and green hides, initiating green brakemen, and sidestepping the responsibility of "overs," "shorts," and "damages," he isn't likely to be an ideal professor of the "Art of Gentle Manners."

It's like putting a full-dress suit on the cave man.

But maybe they can subdue Buck, and get on a veneer of polish. Every real diamond, you know, comes from the mud; and we can never know its sparkle and carat until it goes through the processes of cut and polish.

Maybe the "courtesy" school won't take notice when Buck walks in. Glad I'm not the professor.

There are more Bucks among us than Professor Courtesy suspects.

I went over to the passenger station to explain it all to Chauncy, our ticket-man.

"Chauncy," I said benignly, "that sad, far-away, board-past-due, she-never-spoke-again look must come off your face. Have you seen the primer?"

"Primer—what primer?"

"Leaflet 'A,' for kindergarten class. First aid to the rude. C-a-t, d-o-g. How to be polite, though pushed. How to radiate sunshine, though enveloped in gloom. How to dispense joy and scatter gladness and to fill this smut-covered hole with charm."

"Hold on," protested Chauncy. "I can't keep up. This antimeat diet is going to your head. Sit down a minute. I'll open this window for a little air. When did you first notice it?"

"Never mind me!" I exclaimed. "It's you. You are to get a series of instructions by mail on 'Politeness, or How to Be a Gentleman Regardless of the Natural Bent or Other Deformities, and in Spite of Yourself.'"

"HERE IS ONE DAY WHEN THIS OFFICE WILL FORGET TO EMIT ITS CUSTOMARY DENTAL-PARLOR GROANS."

"What is it? One of them 'put-in-his-coffee' or it 'works-while-he-sleeps' cures?" asked Chauncy, with some curiosity.

"Not at all," I replied. "It's a pamphlet that will come to you leaflet 'A,' then leaflet 'B,' down to 'Q.' When you are through with them you will know exactly how to run a ticket-office."

"Know how to run a ticket-office!" re-

"YOUNG MAN, IF YOU EVER GIT THE RHEUMATISM, LIKE I HEV."

peated Chauncy contemptuously. "Maybe I haven't learned anything in ten years, standing here and hammering that dater every day. Do you think them fellows in the general offices can tell me anything?"

"They are not telling you anything about how to handle an 'L' punch or to fill in a skeleton ticket to Saskatchewan via Winnipeg, or how to route a home seeker to Tacoma via the 'Air-Ship Line' returning. They are going to improve your manners. They are going to make you so pleasant, polite, and considerate that people will come for miles to ride on your road.

"There will be a big sign over your door reading, 'Welcome.' As people enter, you will stand by and bow, bestow a cheering word and extend a warm handclasp. Then you will circulate among them with genial cheer and engaging amiability. You will be helpful and considerate to the aged, the ill, and the infirm. You will mingle in common brotherhood, and be a father to all who come to you."

"Hold on!" protested Chauncy. "This line of talk is not for 'yours truly.' My system cannot be improved upon. It is the respectful distance, instead of the close touch. When my brand of poise and decorum don't suit 'em, it's me back to agriculture. What's the use of straining yourself to be polite, when you can get one dollar for a rooster and forty cents a dozen for eggs?"

The argument became heated.

I held for intimate relations, and Chauncy for a dignified reserve.

"I'll tell you what I'll do, you proselyte Missourian!" I exclaimed with warmth. "I'll show you up! I'll run this ticket-office one day on the plan outlined in the pamphlet! I'll lift the sadness from this dismal joint! I'll make the people feel that this is not the cave of gloom or the chamber of horrors, but the house of gladness!"

On the following day Chauncy turned the plant over to me with all rights and good-will.

I took a chesty pride in showing the young man up. I was eager to demonstrate to him the value of the sympathetic ear and the kind word, and, by contrast, bring disgrace on him in public.

I appeared neatly shaven and with vaselined hair. I wore a gaudy vest and a necktie of brilliant hue, for bright colors suggest cheer.

Chauncy slunk into an obscure corner to be a passive and unsympathetic observer of the day's doings.

"Aren't you going to open with a halleluiah service?" he asked tauntingly.

"I may hum some merry ditty from hour to hour, and in between I may whistle snatches of some blithesome song," I replied. Then I added insinuatingly: "Anyway, here is one day when this office will forget to emit its customary dental-parlor groans."

The telephone rang rather persistently, but I answered every time with promptness and with a cheery "Don't forget to call again," and "No trouble at all, I assure you."

Still, for the life of me, I do not see why one woman had to call me up four times to find out how to get to Pennville and back, particularly when I was so careful to give her every detail the first time. Oh, well, women are naturally nervous about travel, and we must emphasize what we explain to them before they feel fully assured.

"Br-r-r-r-r-r-r!"

"Hallo! Ticket-office of the Tip-Top Railroad. How's that? Pennville? Yes, that's correct, as I told you. Let you have it again? Oh, very well—with pleasure. Eh? How's that?"

I held my hand over the mouthpiece so my voice would not carry.

"Wouldn't that frost you?" I observed to Chauncy. "She says her Aunt Jane says there ain't such a train out of Pennville that I gave her. Says who's right—Aunt Jane or me?"

"I notice your brow is slightly corrugated," hinted Chauncy.

I directed my attention to the telephone.

"Hallo! Your Aunt Jane is mistaken. You can count on the train as I gave it to you."

"Well, we think we do—"

"Anyway, this time she's off—mistake—"

"Don't bang that telephone so hard when you hang it up," suggested Chauncy. "They cost money."

An old lady came into the waiting-room, and seated herself with a sort of grim endurance for an hour's wait.

I went out and greeted her with a friendly salutation.

"Good morning, grandma," said I. "You have quite a wait before your train comes. If you will sit over in this seat, I will raise the window for you. This is a fine morning, and the spring air is a tonic."

"I don't see why you want the wind to blow on me for!" observed grandma, with a cold, steely look. "Young man, if you ever git the rheumatism, like I hev, you wouldn't ask eny one to set in the wind. I'm thinkin' you didn't ask me to expose myself for eny good. What you thought of was, if I'd set there in the draft, maybe I'd go home and die. Then all my folks from around Dayton and Eaton would haft to come out here to the funeral, and that would make business for your old railroad. You're in a awful little business. You're purty low-down, you air."

"Indeed, madam," I hastily apologized, "I was only looking to your comfort."

"Well, they ain't no use to argue. I'm goin' to stay sot right here, and you'd obleege me by not sayin' eny more to me."

I beat it into the office. Chauncy chuckled exultantly.

Then a voice called to me through the ticket-window—one of those raspy, insistent voices with a "step-lively" and "come-across" inflection to it.

"Say, young fellow," he demanded, "I want some information. I want to go to Kalamazoo and return to Kokomo, and then to Oshkosh, by to-morrow night; and if I get to Peoria, how much time will I have at Aurora? And how far is Urbana from Susquehanna? And do you know of a good dollar-a-day house at Champaign? And when is the last interurban out of Paducah? Quite a wait at Effingham before I could get out to Cairo, ain't it? Wouldn't be surprised if it didn't rain before night—"

This came out in a straight string, and only one breath.

I shoved him the official guide.

He pushed it back.

"Say, you look it up. I can't get anything out of them guides."

"Really," I explained, "I don't think I can find the time right now. There are so many waiting for tickets—"

"You're paid for looking these things up, ain't you?" he blurted.

"Yes, but—" I had that pitched higher than was necessary, so I modified it to the gentle assurance that in a very little bit I would look it up for him.

"Oh, never mind," he snapped. "Give me a ticket to Sweetser. A man can get a stock-market tip out of J. Pierpont Morgan about as easy as he can get a piece of travel information out of a ticket-agent."

A sort of mocking cough issued from the corner of the office.

Then the telephone-bell rang.

"Hallo!"

"So—Uncle Reub says there isn't any such a train out of Pennville. Well, the

guide says there is. That's all I can say. What's that? Oh, no! We wouldn't purposely mislead you. No, we would not. I say we would not. I want you to understand—"

"Br-r-r-r-r-r!" right in my ear.

Caliban, sitting in the corner pulled his hat down over his eyes to hide the grimace of his face. No need of that. I didn't look over in his direction.

"Goodness me," came a thin, piping voice from the other window, "I'm afraid you'll make me miss my train, you keep me standing here so long for a ticket. You are certainly not very attentive."

After the rush had subsided a little, I noticed a dear young thing with velvet eyes and peach-blow cheeks, looking about the waiting-room. She seemed so timid and so frail to be alone in the rude jostle of a public station, that I hurried out to her to speak a word of cheer. I was eager to circulate.

I asked her if there was any information I could give her. Could I bring her some of our reading-matter to entertain her while she waited?

She thrilled me with a smile.

"You are so nice and considerate," she said. That high-voltage compliment went through me to the finger-tips.

With fine presence of mind, I put one over for the railroad.

"It is our desire to be kind and considerate to our patrons. The road demands it, and we find it a pleasure."

"Really," she blushed. "It is so unusual — so extraordinary! I always thought railroad men were so er—well, not exactly rude, but so blunt, and—and—rather peremptory. I always shuddered when I had to ask them for information."

"I am sorry we have that reputation," I rejoined smilingly. "In a measure, we may have deserved it; but we expect to make amends. We expect to become more and more courteous and obliging to our patrons, and attract them to us instead of repelling them. 'Nothing pays so well as kindness.'" I added that maxim as though I had just received it fresh by wireless from "Poor Richard," or Confucius.

"How delightful!" she exclaimed.

Then, with a sort of legerdemain and quicker-than-the-eye dexterity, she whipped from the folds of a fluffy jacket a rose-colored magazine and thrust it into my hands.

"That's the *Ladies' Home Doings*," she added with a quick smile. "Published in Quakerville. I am canvassing for subscriptions. Only two dollars the year. Think of that! Only two dollars! American menus, American patterns, American morals—and society. Ninety-six pages of uplift and refinement every month!"

I put on the reverse and began to back slowly.

She stayed me with a pretty hand on my arm. She lifted her eyes appealingly to mine.

"If I can get them a million subscribers," she went on with a sort of pathetic hunger, "I get a trip to Europe! You know what that means to a girl. You are a ticket-man. You know how travel

I PUT ON THE REVERSE AND BEGAN TO BACK.

broadens and educates. You are such a good man—such a nice man—such a kind man. You will help a poor girl, won't you?"

A sudden impulse of benevolence overcame me. I could not turn her away. I thrust my hand deep into my trousers-pocket and brought forth two shining "e pluribus unums," and she deftly slipped them into the capacious maw of her dangling reticule.

"WILL WE BE HERE NEXT WEEK?" HE DEMANDED.

"How nice of you," she added, recording my name. "You will be delighted with the magazine. I know you will. You might help me with others. Couldn't you speak to some of your friends for me?"

"Don't forget," I interrupted with fine business instinct, "that when you go to Europe our line takes you to New York."

"Oh, the magazine people will attend to that," she replied, and was gone.

"Stung!"

That hoarse, exultant chuckle came from the corner of the office.

The telephone was ringing.

"Hallo! Yes! What am I going to do about that train that doesn't run out of Pennville? I have told you it does! d-o-e-s! D-O-E-S, run! Is that plain enough? Uncle Reub? Oh, Uncle Reub be hanged!"

I hung up with a bang.

"Whoa!" came the croaking voice from the corner.

I went out into the men's waiting-room, primarily to cool off, but, incidentally, with another consignment of good cheer to scatter among the few passengers that were there.

A lean, hawk-nosed man sat on the end of a seat, apparently dejected and dyspeptic.

He empaled me with a restless eye, and I at once came back at him with the cordial information that it was a nice day.

"Nice day to-day," said he gloomily. "But what of to-morrow? This is a bad climate. To-day everything may be fine. To-morrow it may be raw and blustry, and the next day you may have pneumonia, and next week your lodge may be passing appropriate resolutions on you. That's this climate, sir!"

"Well," I said cheerfully, "a few of

us get through it all right. You and I are still here."

"But will we be here next week?" he demanded, almost fiercely. "Tell me that. Some one dies every minute. What's your minute? What's mine? He jumped up and confronted me at close range, as if to read the answer in my open, joyous countenance.

"Search me," said I airily. "Why don't you see a trance clairvoyant?"

"That's it!" he shouted. "The American people are always joking—always frivolous—always light-headed."

"What's the use to be otherwise?" I argued; "why not fill the world with joy and sunshine to-day, and take no heed of to-morrow?"

"Improvidence! Criminal neglect! Casting off the loved ones to be a burden on others!"

"No gloom for me," said I, edging over toward the office.

He clung to me and followed me in.

"You're a salaried man," he persisted. "You get so much every month. You know what to count on. You are the last man in the world to fail to provide for your little ones—to save them from the cold and cruel world if your minute should come soon. Study that."

He thrust a pamphlet into my unwilling hands.

"We wrote eleven thousand and nine new policies in 1909. What's our outstanding insurance? Two hundred and seventy million dollars! We have never contested a claim. What's our assets? Over a hundred million! Look over one of our double-barreled, quick-trigger, ten-shot policies, where you share in the surplus and participate in the dividends—where you draw out more than you pay in—and we actually pay you for the privilege of carrying your insurance! You should have a five-thousand-dollar policy. What's your age?"

"Hold on!" I cried. "Cut it out! A railroad man that eats meat and eggs can't have any money left for premiums. Nix on more insurance!"

"You don't care what becomes of your family?" he asked, with a tone of injury.

"That needn't be any concern of yours," I retorted warmly. "I'll take care of the family."

"The little ones can go begging, eh?"

"Vamose! Clear out!"

"Of course, there's orphan homes—"

"To the waiting-room for you!"

"And private charities—"

"Dig!"

"And poorhouses—"

I slammed the office-door and wiped a few beady drops from my forehead.

A strange, guttural sound came from the corner.

The telephone rang.

"You ought to know," came the voice to my "Hallo!" that they ain't any train out of Pennville. Uncle Reub says the durned fool—"

I cut off the rest of it by hanging up the receiver. Then I rubbed my head and said: "Tranquillity—tranquillity—tranquillity," forward, backward, and down the middle nine times until I was composed and could not hear the mocking snicker that came from the corner.

Just then I noticed a frail little woman in the ladies' waiting-room looking out of the window at nothing in particular, and sobbing gently.

I was moved by the woman's tears, and hurried out to her.

"My dear madam," I exclaimed, "it pains me to see you cry. Can I do anything for you? How can I help you in your troubles?"

"You—can—help—me—a—little—if—if—you—will," she sobbed, lifting tear-stained eyes to me.

"I'll do anything in reason, madam," I added hastily. "Anything!" for she was pretty.

"We've—had—a—quarrel, Jim and me. He'll—follow me here—I'm—afraid. Please let me step—in your—office—a minute—or two—until he—gets over—his mad spell."

"Certainly," I said, opening the door.

She stepped inside and planted herself before a mirror which we had in the rear of the office. With dainty hands she readjusted her hat, her rat, and her puffs, and wiped her eyes.

A husky-looking young fellow thrust his nose up to the ticket-window.

"Say," he called, "have you seen a woman around here wearing a large black hat and a blue suit?"

"No, sir," I answered stoutly.

"You would remember her if you saw

her! She has large blue eyes, and fine teeth—nice complexion, too. I'm awful anxious to find her. I am, for sure."

"Well, she hasn't been here," I answered with indifference. "I've seen 'em all. None of 'em answers that description."

"I'm disappointed — I sure am," he answered in a sorrowful tone, turning away. "I wanted to tell her how sorry I am."

The door of our office flew open.

"Here I am, Jim!" cried the little woman, running to him.

"Why, Puss," he exclaimed, "were you hiding in there?"

Then he made a rush for the office; but the spring-lock held him. He reappeared at the window redder than a train-order flag.

"So you was putting your oar in this, was you—you pie-faced monkey? Come out from behind there," he roared, "and I'll decorate that mug of yours so you couldn't be identified for a month! Come on out, you smug-faced, lying coward—you—you—"

He grew purple with rage.

"Ain't you going out and mix with the public?" asked Chauncy reproachfully.

I refused to go out, and when the bruiser saw I positively would not accept any invitations for morgue honors he moved away, with the woman clinging to him.

"I WOULD HAVE YOU KNOW THAT JIM IS A PERFECT GENT."

But the woman returned to the window for a parting shot.

"I would have you know," she replied, "that Jim is a perfect gent."

Then she elevated her nose and tilted out to Jim, and they departed, arm in arm.

Chauncy should have gone out and explained matters. Instead of that, he wanted to match me against them, knowing, too, that I might go too far and do something I might regret. I am disgusted with him.

At luncheon I called him on the phone. He's too perverse and thick-headed to learn anything, anyway. Besides, why should I neglect my duties at the freight-house?

So I told him bluntly that I would not return for the afternoon, and for him to run the passenger station in his own way.

The other day I read a strange story. It is said to be true. It is a story of the "Kind Word" and the "Ultimate Result."

There lived in a small town near Chicago a rich, but eccentric, old man.

He made frequent trips between his home and the city. He was of a curious turn, asked many questions, and drew heavily on the patience of the conductors.

One conductor, whom we shall call Jones, was always polite to the old man, and often put himself out a little to amuse or entertain him with stories or observations out of the ordinary.

It pleased the old man, and at length he made it a rule to select Jones's train whenever he could for his trips.

No matter how importuning the old man was, Jones never grew irritable or short or crusty. It is Jones's way. He is always pleasant with every one. He really doesn't know how to be otherwise.

One day the old man traveled to that bourn from which there are no return-tickets. They read his will.

There were some minor provisions. Among them was an item bequeathing the sum of one thousand dollars to Conductor Jones, "For kindness."

This, being a true story, shows that it pays to be civil. And it pays to mix—only: Don't overmix!

DON'T BUY A TICKET ON THIS LINE.

DARK VALLEY RAILROAD.

Great International Route.

Few stop-over checks. Unreliable return trains.

MILES.	STATIONS ON MAIN LINE.	TIME.
0	Leave.....Smoky Hollow.....	7.00 A.M.
6	" .....Cigarette Junction.....	8.00 A.M.
10	" .....Soft-Drink Station.....	8.30 A.M.
15	" .....Moderation Falls.....	9.00 A.M.
18	" .....Tipplersvale.....	10.30 A.M.
20	" .....Topersville.....	10.45 A.M.
22	" .....Drunkard's Curve.....	11.00 A.M.
25	" .....Rowdy Wood.....	11.45 A.M.
30	Arrive at.....Quarrelsburg.....	12.00 noon
	Stops one hour to abuse wife and children.	
32	Leave.....Bummer's Roost.....	1.00 P.M.
34	" .....Beggar's Town.....	4.00 P.M.
36	" .....Deliriumville.....	6.00 P.M.
38	" .....Rattlesnake Swamp.....	8.00 P.M.
40	" .....Prisonburg.....	10.00 P.M.
44	" .....Devil's Gap.....	10.30 P.M.
46	Arrive.....Dark Valley.....	11.30 P.M.
48	" .....Demon's Land.....	11.45 P.M.
50	" .....Dead River and Perdition.....	12.00 mid.

Tickets for sale by all Bar-Keepers.

ANNUAL STATEMENT OF THE D. V. R. R.

Carries 400,000 paupers. Brings Misery and Wo to 2,000,000, Despatches 60,000 into Eternity unprepared. Carries 600,000 Drunkards. Conveys 100,000 Criminals to Prison.

D. E. VIL, *Gen'l Manager.* A. L. COHOL, *Agent.*

—*Pere Marquette Monthly Magazine.*

A HOLD-UP ON HOG MOUNTAIN

BY AUGUSTUS WITTFELD.

Monk Tells of a Ride on the Scenery Special That Was Rudely Interrupted by a Pesky Pirate.

"These stories of hold-ups and train-robberies," said Monk, "always remind me of an actress who has been robbed of her glittering glassware. You never heard of any one doing much on the proceeds of histrionic highwaying, and the man who attempts to hold up a modern express-train may get away with the goods, but eventually the sheriff puts him on his visiting-list."

"Right you are," replied the pug-nosed brakeman. "It takes nerve to hold up a train, but it takes more than nerve to pull the trick off successfully and retire on the proceeds. The men who possess all the qualifications requisite for such jobs generally land a sinecure behind the frosted-glass partition."

"Now you're talking classical English," commented Monk, "and expressing clarified thought in capsule form. I never knew but one man to pull off a hold-up successfully, and then obliterate himself from the surroundings.

"It happened down South, where at one time the railroads were noted for their lack of speed, and where it was impossible to miss a train. All you had to do, if your train had left the station, was to follow it on foot, and you couldn't miss it unless you overlooked it or mistook its creeping for the inertia of a side-tracked section."

"Yes," commented the pug-nosed brakeman, "I knew of a man down there who brought suit against the S. L. O. road to recover for damages sustained in bumping into the rear end of the moonlight limited while walking along the track.

"The company tried to non-suit him by bringing a counter charge of trespass; but his lawyer threatened to attack the validity of their charter on the ground that they could not prove that they were *running* trains, and they withdrew their charge.

"The plaintiff won his suit, and the company was ordered to upholster the rear end of their trains to prevent a repetition of such accidents."

"Well, to get back to the hold-up," said Monk, "I was touring the South, some years back, and at this particular time my objective-point was Boonville. As I had lots of leisure, I decided to make the trip by rail.

"I caught up to a freight bound for that point, and, sauntering up to it, I swung myself aboard the caboose and proceeded to accord myself a cordial welcome. I took possession of the lower bunk without waiting for the porter to appear, and was soon in the land of dreams.

"I was awakened by the crew, who had come back to see if the rear end was all right. He asked me what the Stonewall Jackson I meant by intruding, and volunteered to punch my ticket or my head without fear or favor.

"I hypnotized him by making a few occult passes, and he extended me the cordial *entente*. It was pretty good stuff, even though it was tax-free and did not bear the pure-food guarantee."

"If you will pardon the interruption," said the pug-nosed brakeman, "I want to pay tribute to the railroads of the South. The Southern spirit of hospitality is not dead; and the Chesterfields of the rail will give you the glad welcome or the

G. B. with all the grace born of heredity and long practise. They will fire you from a train in such courtly manner that you feel like apologizing for giving them the trouble."

"Your prognostication coincides with my observation," commented Monk. "This Chesterfield of the caboose told me we were approaching Hog Mountain, a moonshiners' stronghold, noted for its reluctance to contribute to the revenues of the government and for the weirdness and grandeur of its scenery.

"He said he had to get back to the engine and tend to his fire, and he advised me to take a seat in the observatory of the caboose and enjoy the phantasorama.

"I took his advice, and found that we were traveling up into the mountain, and that the scenery was all that he claimed for it. I was taking in the passing scape, when I noticed a tall mountaineer making his way down a rugged path toward us.

"He carried a long rifle, and was accompanied by a lean, lanky coon-dog. He reached the railroad-track just as we passed, and, spying me looking out of the observatory window like a blooming *Juliet* scouring the horizon for a dilatory *Romeo,* he pointed his rifle at me and commanded:

"'You-all throw up your hands!'

"I looked at him in amazement, but lost no time in doing the upward Delsarte movement.

"'Say, you moth-eaten mountaineer,' I shouted, 'what's the answer to the riddle you're propounding? Have I unconsciously butted into a Hatfield-McCoy combination, or do you imagine this is a treasure-train?'

"'You-all stop that train, or I'll blow your darned head off!' he replied.

"'How the heck do you expect me to stop the train?' I shouted back. 'Run along, Reuben, and file your request with the engineer. He's running this seeing-the-scenery special from the front end.'

"For a moment he looked as if he doubted my statement; then, lowering his gun, he sprinted for the forward end, while I climbed down from my perch and started out to investigate.

"As I stepped from the train, it came to a stop, and when I reached the engine the mountaineer had the engineer and his man of all work lined up with their hands as far from earth as possible. He caught sight of me, and in a wink he had me doing the high reach alongside the others.

"'Say,' growled the engineer, 'what you want to do? Steal this outfit? There isn't anything on board you can take, unless it's the coal in the tender.'

"'Don't you-all give me no sass,' cautioned the tall man of the mountains. 'I'm going to borrow this train, and you-uns 'll have to run it for me.'

"Well, he made us all climb aboard, packing us into the cab, and ordered the engineer to start up.

"'Say,' queried the engineer, with his hand on the throttle, "aren't you going to ride?'

"'No,' replied the mountaineer, 'I hain't never been on one of those pesky things, an' I ain't going to take no chances. I guess I can hoof it and keep up to you; but don't you-all try to run away from me, or I'll plug you full of lead!'

"The engineer started up, and the Highland hold-up man had no trouble keeping up with us. The queer procession proceeded for several miles, then we came to a place where a track branched off from the main line into the heart of the wilderness. Here he brought the engine to a stop by pointing his gun at the engineer and shouting, 'Whoa!'

"'Now, you-all git down and move the track over so we can go up this 'ere way,' he commanded, addressing the man of all work.

"That worthy lost no time in climbing down and throwing the switch, and we moved along the old unused track.

"'What the nation does that elongated outlaw want to run us up this old lumber-line for?' growled the engineer. 'There hasn't been a train along here since the road stopped taking out timber.'

"'Say, you train-robber!' shouted the man of all work, addressing the patriarchal pirate in his most courtly manner, 'will you kindly inform us whither we are going and why, and what is our doom.'

"'You-all 'll find out soon enough,' he answered. 'Shut up!'

"We proceeded for about three miles, and then the grizzled guerrilla commanded the engineer to stop. He told the fire-

man to fix his fires so they would last for a couple of hours. When everything was ready he lined us up in single file, with the lanky coon-dog in the lead, and made us precede him along a path in the wilderness. In about fifteen minutes we came to a cabin in a clearing. In answer to a whistle from our captor, a woman appeared at the door.

"'Mandy,' he said, 'I've brought company for dinner. Rustle around lively. These gents is in a hurry.'

"In a short time the meal was ready, and we all sat down. It knocked the wind out of me to hear that venerable villain ask a divine blessing on the repast, but it didn't spoil my appetite.

"After we had finished and the table had been cleared, our host procured writing materials and placed them on the table.

"'I want one of you-uns to write a letter,' he said. 'Guess you-all had better do it,' he continued, addressing me.

"I expressed my willingness to accommodate him, and prepared to stenograph his dictation.

"'This here letter,' he said, 'is to be wrote to the President of these United States.'

"I indited the superscription and waited for him to commence dictation.

"'Mr. President,' he started, and then continued:

"DEAR SIR:

This here section of the country has been pestered by a lot of no-account revenue men huntin' for moonshiners. They have made it onpleasant for us honest natives and we-all has had to feed them pretty darn often. To prove to you that these revenue men you send down here are no-account critters, I am sending you by railroad a keg of first-class moonshine whisky which I made in my cabin while your varmints was there eating my grub. I guess you-all will find it all right, but there is no use you sending any more of them critters down here to get me, for I am going away. Please excuse the writing, as it was done by a no-account railroad man. Your, truly,

[his]
JAKE X. TOLLIVER.
[mark]

"Quite an expressive epistle," commented the pug-nosed brakeman.

"Yes," replied Monk. "That mountaineer had the art of letter-writing down fine. After I had finished my stenographic duties, that moonshiner produced a five-gallon keg and made us lug it down to the train. He told the engineer to see that it was delivered to the President along with the letter. Then he bade us adieu and told us to clear out.

"We backed out of that wilderness, and eventually reached our destination."

"And was the liquor sent to the President?" asked the pug-nosed brakeman.

"Not in a thousand years!" exclaimed Monk. "Somehow or other that keg sprung a leak, an' before we reached our destination every drop of the liquor was gone. If the train hadn't run so slow, we might have saved some of it."

RAILWAY CLERK'S ORGANIZATION.

MANY railway clerks, both members and non-members, entertain the idea that the sole purpose of this organization is to compel railway companies to increase the pay, and decrease the hours of service of its members, whether they are justly entitled thereto or not.

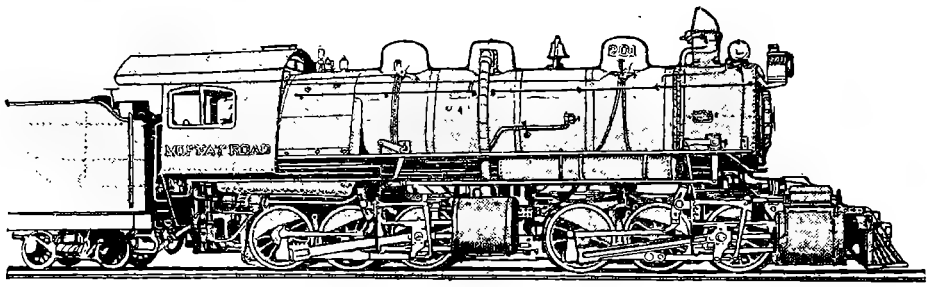
Many railway superintendents, agents and other officials look upon this and all similar movements in the same light; and it is the dominance of this idea over one of both parties to a controversy over wages and conditions of service, that leads to strikes and lockouts, instead of peaceful solution.

This is an entirely erroneous view for those of either side to hold and, because of its harmful, unjust, even dangerous tendencies, should be stored with memories of the past and replaced by broader, more up-to-date, generous and just views.

These movements are not transient, they are enduringly based.

Like all other class organizations the Brotherhood of Railway Clerks came into being in response to an economic necessity.

Civilization began with combination of effort or organization of the species; as its efficacy and possibilities became apparent the movement grew and prospered; its net product, civilization, followed apace and the evolutionary process marches bravely onward in the path of time.—*Railway Clerk.*



MALLET ARTICULATED COMPOUND, NO. 200, RECENTLY BUILT BY THE AMERICAN LOCOMOTIVE COMPANY FOR THE DENVER, NORTHWESTERN AND PACIFIC RAILWAY. WEIGHT, 327,500 POUNDS; BOILER PRESSURE, 225 POUNDS; GRATE AREA, 72 SQUARE FEET; HAULING CAPACITY, 7,145 TONS ON THE LEVEL.

Mallet and His Invention.

BY ARNO DOSCH.

THE history of Anatole Mallet and his engine is a curious repetition of the history of nearly all great pioneers in the field of invention. The story of the fight for recognition and, after recognition of his engine, due credit for himself, is one of the romances of railroading.

It is a romance that ends happily, though not entirely satisfactorily. Mallet's belated victory has deprived him of all the fruits of victory except undying fame.

The patents by which his engine was originally protected have long ago expired, and the fact that the creation of his genius and persistence is revolutionizing the rail transportation power of the world does not put one cent into his pocket. The slights of practical railroad men are all the more difficult to understand when one remembers that Mallet has always been among the very highest of the scientific men of the world.

Scoffed At by Practical Builders, Considered as an Unimportant Product of Bad Railroads, the Mallet Articulated Compound Is Now the Last Word In Engine Construction.

"WHY is this new engine called a Mallet?" railroad men frequently ask these days. "Who is Mallet, anyhow?"

Few can answer. Even among civil and mechanical engineers he is hardly more than a name. Vaguely, it is known that some Frenchman, named Anatole Mallet—and most do not even know his first name — invented the articulated compound engine which is revolutionizing the handling of freight on American and foreign roads.

But there are not a dozen engineers who ever heard anything about the man himself and the struggle he had to get recognition.

This is surprising, but is by no means the most curious circumstance which confronts any one who tries to find out about

him. Naturally, the place to look for information regarding a man who has done such a big thing is among the list of notables of his own country—in this case, "Who's Who in France." But, strange as it may seem, he is totally unknown to the compilers of this book. It is only by going to the records of the French Academy of Sciences that his importance is realized.

The Man, Mallet.

Mallet is still a hale and hearty old man, carrying on the business of consulting engineer at 30 Rue Troudaine, Paris. He is well along toward eighty years of age, but still active.

For fifty-three years he has been a member of the Academy of Sciences; as early as 1873 he was secretary of the society, and now, for over thirty years, he has been editor of its publications. He has also been a member of many important committees, and belongs to several other French scientific bodies. But the most important and surprising information there is to be had about him is that the Mallet locomotive, which we regard as something very new and wonderful, was invented by him in 1874, and put into actual service as early as 1875.

It has, however, had a long struggle for recognition, and would not, in fact, have arrived at its present importance if it had not been for the American locomotive designer, Carl J. Mellin — pronounced Melleen. It was Mellin who saw the fulness of the possibilities in the Mallet type of compound locomotives, and developed it until it has reached its present position in the railroad world.

It was not until Mellin made practical use of its great possibilities that Mallet's invention had had a chance to show what it could do, although Mallet struggled for many years to bring it before the railroads. That it was neglected was a source of constant sorrow during the greater part of his life, and if he had not been a particularly long-lived man, he would never have seen its final triumph. Any story of Mallet is the story of his engine, as it has been the pride of his life.

Other men had been trying for a number of years to work out the same design as Mallet successfully evolved, but all had failed. Something of the kind was, however, a necessity on many of the smaller, crooked railroads in Europe. They were narrow-gaged, winding as a road full of sharp turns and of uneven grade—very much, in fact, like our trolley-lines. They required engines which could make the sharp turns and could adjust themselves to the sudden changes in grade.

Mallet solved the problem by making his engine with a high and a low-pressure cylinder, arranged on an entirely different system from the ordinary compound. The engines were necessarily light, not to overload the road-bed; and to get as much force as possible in the drivers, and get a correspondingly large hauling power, he put all the weight on the drivers.

The first engine which was made under his directions was turned out by the Creusot Works, in 1875, for service on the Bayonne and Biarritz Railway, a road which was used only by tourists. As the engine was then constructed, the duties of the engineer were rather complicated, and, largely on this account, it was not made much use of on other roads until the engineer's duties were modified.

In those days Mallet, besides being secretary of the Academy of Sciences, was engaged in all sorts of engineering problems, and did not do much toward improving his engine until almost ten years later, when the Decauville Engineering Works, near Paris, called on him for a design of an engine which could be used on a portable railroad in military operations. So he took his former design in hand and made several marked improvements, especially in the gear, reducing the engineer's duties practically to what they are now.

The Pioneer of the Type.

This Mallet, made in the early eighties, contained all the essentials of the biggest Mallets made to-day. Instead of having three or four drive-wheels propelled by each cylinder, it had only one; but the design was the same. As in the latest improvements, the frame which carried the rear drivers and the rear or high-pressure cylinder was rigidly attached to the boiler and made secure in the usual

manner, and the forward drivers and the low-pressure cylinders were on an entirely separate frame, which was capable of turning independently of the rear drivers. George L. Fowler, a consulting engineer of New York, who saw the Decauville portable engine in operation, says it was in every way the same as the huge mountain-climbers now in use on the American railroads.

"It was the first Mallet I ever saw," he said, in describing it, "and it was so small you could almost jump over it. Except for the design, you could not believe it was any relation to the monster Mallets they are turning out in this country nowadays.

"The possibilities of the engine for light work were apparent in an instant. When I saw it in operation, it was hauling a heavy cannon over a roadway that was being laid but a few minutes ahead of it. It was an uneven country, and, for the benefit of the test, they were building bridges and laying track from material which had been torn up in the rear of the locomotive as it passed. There were, altogether, only a few hundred yards of track, but this was built so rapidly that the little Mallet was able to keep going faster than I could walk. It was extremely unsteady and uneven, as you can imagine, and the engine swayed back and forth over all kinds of grades; but either the forward or the rear wheels would always keep going."

That capacity always to keep going is what is making the Mallet what it is coming to mean to freight hauling on the American mountains. Besides having fifty per cent greater hauling power than an ordinary engine of its own weight, the fact that the forward and the rear drivers are worked by separate cylinders on separate trucks makes it capable of forging its way steadily ahead, even if one set of drivers loses its grip on the track.

A Prophet Without Honor.

When Mallet built the portable engine he had in mind its possibilities for heavier work—such work, in fact, as it has been put to of recent years; but, at the time, he could not secure the attention of the great railroad builders. It might do well enough for portable railways and small, mountain-climbing roads, they said; but when it came to real railroading, they could see nothing in the Mallet.

This attitude on the part of railroad men, and the attempts Mallet made to break it down, give his career a particularly dramatic turn. And then, when it was finally taken up by the railroads and made use of, as might have been done years ago, the glory of it was almost lost to him. There was a time, when it first came into prominence, when it was known by the names of two other men, and it was only because their names did not stick in the memory as well as Mallet's that he received the fame in the end.

Science has recognized the value of his contribution to the world from the beginning. He had no sooner placed his engine in operation on the Bayonne and Biarritz Railway than the Academy of Sciences presented him with a gold medal and placed him among the most important of its members. Then, when the Decauville portable engine, which he had designed, proved a success, the French Society for the Advancement of National Industries conferred on him another gold medal.

Belated Honors.

Again, when the engine was coming into considerable use on the mountain railroads of Europe, the same organization, in 1895, gave him a second gold medal for the same invention, apparently as a double honor to offset the general lack of credit. And even America has given him scientific honors, but it was done in such an unostentatious way that no one ever heard about it.

The honor in this case, however, was not given on account of the greatness of his achievement, but for a paper on the subject of the Mallet engine. For this the Franklin Institute of Philadelphia, in 1908, presented him with the Elliott Cresson medal.

Little good these honors do him. To the world at large, and particularly to railroad men, he is absolutely unknown. That even his name would be lost he feared himself, and was put to the necessity of writing to the leading engineering papers and correcting their mistake when they fell into the habit of calling

his wonderful invention by the names of other men.

But, first, he had to get his engine recognized. He has not been, at any time in his career, either connected with a railroad or with a locomotive company, and on that account it has been to the interest of no one to make his invention prominent. When it finally won out, it was on sheer merit, and Mellin, the man who made it what it is to-day, did not even know the inventor. He had seen engines built on that design, and that was all.

Heart-Breaking Struggle.

If he had cared to, Mallet might have used his position with the Academy of Sciences to bring his invention more prominently into notice, but this he does not appear ever to have done. Although at various times scattered through a score of years, he wrote on it publicly, and proudly called attention to the few engines of the type which were being successfully used, these articles always appeared in the technical papers which had no connection with the Academy of Sciences.

He did, however, feel himself called upon a number of times to point out in technical papers the virtues of his engine, and suggest its wider use. As late as 1900, only a short time before Mellin arrived at the same idea, he wrote on the subject in as nearly a bitter frame of mind as a scientist could permit himself.

At this time—a quarter of a century after the engine was invented—but four hundred were in existence, and most of those very small and on unimportant lines. Still, he spoke of them proudly, and showed how they had been successfully used.

The article was in *The Railroad,* the most important of the French railway publications; but the readers of the magazine were, as a whole, so little acquainted with it that he went into elaborate explanations of why he had invented it in the first place, and what he had done with it since. Among other things, he said:

"I produced this type of engine to furnish railroads a more powerful and more economical engine than those now in use without increasing the load on the individual wheels or the resistance of the locomotive on curves."

He might have added that the railroads had not appreciated his efforts. Instead, he went on to say that the limit of size for ordinary locomotives had about been reached, and intimated that the railroads would soon be driven by necessity into making general use of his design. In fact, that happened.

Within two years, the Baltimore and Ohio Railroad decided that it needed bigger engines to haul its trains over the heavy grades. It found that it was no longer possible to put more weight on the individual wheels, as the road-bed and the curves would not stand it. The only alternative was the Mallet.

Beginning of the Triumph.

But this did not become apparent at once. In spite of Mallet's efforts, the engine was only known as a little, narrow-gage affair, and it was due to the ingenuity of Mellin that it was made of practical value on American roads.

Mellin was the chief designer for the American Locomotive Works, and had a considerable reputation as a locomotive designer. His fame since, however, has grown to many times what it was before. When he first announced that he was going to supply the Baltimore and Ohio an engine that could do the work of any two engines then in the service, his statement was not taken very seriously.

When he said that it would be on the Mallet design, railroad men who knew what that was were even more skeptical. Failure was predicted on every side until the first of the big Mallets was tried, and then it was immediately apparent that a long step forward had been made.

What the Engine Is.

This is all the more surprising, viewed in the light of later events, when one takes a look at the main features of the Mallet articulated compound engine. It would seem that always the things that appeal to us as the most obvious improvements when put into practise form the largest stumbling-block to the credulity of experts when first stated in theory.

The Mallet engine is really two engines in one; that is, two engines with one boiler. There are two sets of coupled drivers and two pairs of cylinders.

The high-pressure cylinder and the rear set of drivers are fixed rigidly to the locomotive frame, and the low-pressure cylinders and forward drivers are swiveled under the forward part of the engine, so as to act as a forward truck. The two gears are connected by a pivot just forward of the high-pressure cylinders.

This arrangement obviously gives a short, rigid wheel-base, while at the same time giving a large tractive power by the fact that the weight is on all the drivers, extending considerably beyond the rigid wheel-base.

One of the chief advantages of this arrangement is the elimination of the slipping of drive-wheels. If the drivers of one section should slip, the unbalanced power is automatically equalized, and the slipping drivers are compelled to get a fresh grip on the rails without loss of energy to the whole.

By the American Locomotive Company's system of compounding another great advantage is obtained for the Mallet engine. When so desired, the locomotive can be operated as a single-expansion engine, and about twenty per cent additional power gained.

The engineer can, at will, open a valve which will cause the high-pressure cylinders to exhaust directly into the atmosphere, and will cause live steam to be fed directly into the low-pressure cylinders. With this additional power, the tonnage that a Mallet engine can move is almost incredible.

Operated as pushers, they add enormously to the capacity of ordinary engines which, helped by the Mallet up the grades, can pull a much larger load over the level than their average rating. As road engines, the capacity is double that of the ordinary engine. They are now being adapted for passenger service, and there is no reason to believe that the advantages they will show over the ordinary passenger engine would be just as pronounced as they have been in the freight service.

Already, numbers of them have been constructed by the American Locomotive Company for foreign countries, including South Africa, Brazil, France, and Colombia.

The difference between foreign and American railroads is noticeable here. The heaviest Mallet engine built for foreign roads is that for the Central South African railways, which has a total weight of 225,000 pounds, and a weight on the drivers of 192,500, although the tractive power of the engine built for the Central Railway of Brazil is larger, the total weight of 206,000 pounds being all on the drivers. The weight on the drivers of the engine built for the Erie Railroad is 410,000 pounds.

Mellin's first Mallet was four times as large as those which had been made abroad, and last year one was made for the Southern Pacific five times as big. Now the Baldwin Locomotive Works is adapting it to the passenger service.

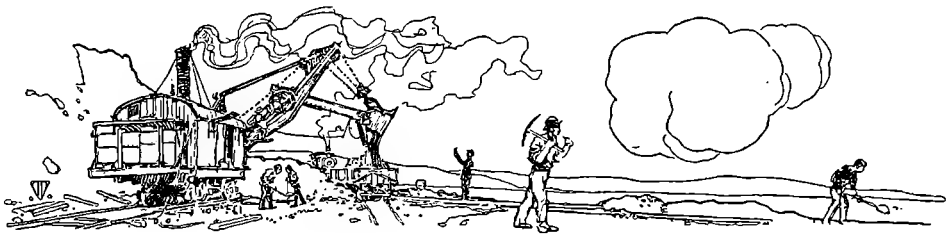
It took forty years for the railroads to realize the value of the Mallet, and the inventor has had comparatively little return on his patents. If it had been taken up twenty years ago, as it should have been, he would have reaped a fortune.

HATS AND BAGGAGE-CARS.

MILLINERS responsible for the mushroom hats are not happy, for the express companies have given the business a fatal slap in the face by so steadily advancing their rates on this kind of freight that they are twice what they were in 1906, and complaint has been made to the Interstate Commerce Commission. The matter is, therefore, now under investigation. The executive of one of the companies says:

"When we first began making rates on women's hats, the hats were small, neat, compact affairs that looked like a pat of butter, and were fastened to the wearer's head with a bit of string. We charged by the pound at that time. Since then the hats have been growing steadily in width, length, height, and the fourth dimension, but they haven't grown an ounce in weight.

"Why, five years ago you could get from 500 to 3,000 women's hats into an ordinary express-car. Now you have to take the double doors out to get one in."—*San Francisco Call.*



BUCEPHALUS, THE AVENGER.

BY EDWARD C. FELLOWES.

Drisko Sniffed the Cool Breeze of Freedom, but Clancy Was Not Outplayed.

CLANCY was an artist at his job. The construction gang was working up alongside the Pauguk River, double-tracking the division, in order to accommodate the growing freight traffic from the brass mills at Fountainville. It was narrow between the river and the bank; and for three miles the steam shovels had to gouge out on one side and fill in on the other, with five hundred thousand yards of rip-rap to hold the fill against the spring freshets.

There were three shovels in commission—two of an ordinary type, and Bucephalus, a monster fresh from the shops, with a capacity of ten cubic yards of earth at a single bite and with steel fingers along his bucket-rim for handling stone.

Clancy was craneman on Bucephalus. Under the corrugated hood of the great machine his engineer hoisted and lowered on signal, while the striker kept watch to see that all was clear; but it was Clancy, perched upon his little platform, halfway up the arm of the big crane, who controlled the thrust of the dipper-bar, going just deep enough to fill the dipper at the highest point in its rise—nibbling cunningly about the boulders which now and then cropped out in the bank, removing their visible means of support, until they were persuaded to take a tumble, when he would deftly gather them in and swing them over to the flats waiting in a long line for the journey to the dump.

This was no greenhorn's job. It took judgment born of long experience, and an eye which could measure distances to a hair, to gage the cutting in the bank, load the dipper exactly full so as to economize time and power, and draw the latch at precisely the right moment as the crane swung the load over the cars.

Clancy, possessing both eye and judgment, was, therefore, an artist. He thought of nothing but his job. He loved Bucephalus, whose first master he was, as though the monster were a clever animal.

He would talk to him while at work, pat him and clean him and oil him when off duty, as though the future of the Pauguk road depended upon his being kept in good humor and condition.

One passion, and one only, besides his love for Bucephalus, found room in Clancy's soul. Being an Irishman, it might be supposed that this was for either mountain dew or a pretty girl; but the craneman never drank, needing the clearest of heads for his work; and as for women—he was a staid married man with a growing family of his own.

Clancy was deeply in love, however,

and the object of his affections was another Irishman.

It would be hard to say what there was in Christy O'Hara to inspire the sentiment. He was built like a baboon, with great flat feet, ungainly arms which hung far below their proportionate point. He had fiery red hair growing like bristles above a receding brow, and his china-blue eyes gave back the light without a flash of soul.

He was boss of the train gang—a small army of trimmers and shovelers, who were designated by numbers instead of names, and recruited from many lands. Many of the gang were Italians; a dozen or so, however, were of those strange nationalities known to ethnologists as Lithuanians, Slovaks, or Ruthenians, for convenience, usually lumped together by the inaccurate under the generic name of Polacks. O'Hara contemptuously designated them as "dagoes."

Over this cosmopolitan aggregation the train boss ruled. His authority was absolute. His genius lay in "speeding," and "speed" them he did, with abundant language which, uncomprehended save for its oaths, drove all hands for records in trimming and unloading, while Bucephalus and his humbler mates supplied endless material for their energies.

Among the Polacks was one, Drisko. Drisko was cursed with imagination. A sullen-browed giant, he was conscious of generations of noble barbarian ancestors, who had lived in castles in the heart of Bohemian forests, busy with raids, forays, and reprisals, singing lays of wild minstrelsy, sleeping all night in the form of the cross before cathedral altars in order to consecrate in advance their errands of robbery and bloodshed.

Echoes of this past rang in the soul of Drisko, a medieval soul, dwelling in a twentieth-century body, compelled to handle, day after day, a Collins shovel and endure the curses of a ribald Irishman.

It was in this grotesque inappropriateness of actor and setting that the germ of tragedy was slowly ripening.

Clancy and O'Hara were together under shelter of the hood of Bucephalus on an afternoon too wet for work even under the inexorable speed law of the train boss. The gang were in their shanties scattered along the edges of the cut. Clancy, a bunch of waste in one hand, an oiler in the other, paused in his work about the engine, and looked at his chum.

"Jack, me b'y, the big dago has it in for ye; do ye watch out for 'm."

O'Hara withdrew his pipe from the corner of his mouth. He glanced up with affection at the craneman.

"I'm watchin' out all right, all right. I'm not afeared of 'em."

Clancy drew nearer.

"Ye're not afeared of 'm. I know it, and in a fair fight I'd back ye; but 'twill be no fair fight. He'll get ye some evenin' in the dark, or lay yer out wid a bar when ye're unsuspectin'. He's lookin' every day for his chance, an' I warn ye, Jack," he added, with a hand upon O'Hara's shoulder.

For the fraction of a second the train boss allowed his stubbly cheek to rest against the rough paw of his mate. Then both men assumed an air of indifference. Clancy mounted to his platform and tried his levers, and O'Hara, turning the collar of his jumper up about his throat, dropped from the car and slushed off through the mud toward his shack.

Clancy's warning was not thrown away upon the train boss. For some time he had been conscious of unrest among the crews. There was nothing overt as yet, but the keen instinct of the Irishman, accustomed to handling rough gangs, had smelled trouble in the air, as a sailor smells a storm.

Long before his men were conscious of it, he felt the psychic disturbance and knew that something was brewing. With watchful eye and ear he went about his work. Day by day the train-crews trimmed their cars, fed by Bucephalus, as diligently as ever. Day by day the spur track advanced, the river channel straightened, the rip-rap grew as the bank disappeared and the fill progressed; still nothing happened to justify O'Hara's suspicions.

Too wise to seem anxious, he made no move himself. As long as the work went on according to specifications, what more did he want? So he watched and

listened, and speeded his gang, with Drisko—cursed by his imagination, his medieval soul linked to his twentieth-century shovel—at their head.

O'Hara did not distrust his suspicions. Too often in the past he had known riot to spring up only after a long period of incubation. The quieter things were, the more he increased his vigilance.

He kept rigid tally of his equipment, prowled around the shanties at night, to catch a chance word; and still nothing. He had little fear of his Italians. Hot in temper they were, and quick to flare up at a moment's notice; but it was only a flare, not a flame.

As a rule, they were cheerful and willing. When he "speeded" them, they took a hitch of their eternal leather belts, grasped their shovels a little more firmly, and, with a grin, added one more notch to the pace, which, deceptive in its apparent deliberation, would continue unwearying and unflagging for hour after hour, until Bucephalus blew his whistle for knocking off.

Of the Polacks the boss was less trustful. Somber, brooding, their thoughtful eyes turned inward upon their past, they seemed always to work under protest.

With these people, it was likely to be a slumbering resentment, cherished and fostered, bursting suddenly into eruption, which was to be feared. O'Hara understood them less, so he watched them with greater care.

It was only after some weeks of catlike vigilance that the train boss came upon anything which might be construed to mean trouble. Scouting through the brush near the shanties one night, he stumbled over a pile of weeds, which, pulled apart, revealed three kegs.

O'Hara kicked them. They were full. How they got into the camp was a mystery. Supplies for the men came by rail, and were unloaded under supervision of a company checker.

The nearest town was four miles away, the sole communication being through the baker's wagon, which once each day delivered its tally of three hundred long, shiny loaves; but these also were counted as they came from the wagon, and nothing else could possibly be smuggled in with them.

O'HARA KICKED THEM. THEY WERE FULL.

Still, it was less the mystery than the fact which troubled O'Hara, for liquor was strictly forbidden except under special circumstances, such as were defined by the company.

The presence of these kegs was in direct defiance of discipline. O'Hara sat down on one of them and ruminated. Finally, he rose with an air of decision, drew the weeds again over the pile, and set off toward his shack.

"Watch Drisko." That was the key to the situation. If trouble came, it would be through him, for he alone possessed the qualities of a leader.

Too much imagination was his defect—an unpardonable defect in such a man. He should have been an automaton with

a number; he insisted upon being a living creature which thought. For this reason the train boss bore him a grudge, which showed itself only in the pale fire of his Irish eyes as he "speeded the gang," and was recognized by Drisko only in the sullen glow of his own dark orbs.

The antagonism was there, however—a continual throwing down of the gauntlet, and a continual acceptance of the challenge—nothing wanting but opportunity for the outbreak.

The day after the discovery of the hidden kegs, work began apparently as usual, with no signs of anything aside from the ordinary routine.

Time had been lost by two days of rain, and must be made up somehow, and O'Hara was the man to see that it was made up. When he began to call for speed, he noticed among his men an air which attracted his attention, not among the Italians, who responded to the extra pressure with the accustomed grin, but among the Polacks.

Drisko wore an expression more nearly resembling insolence than he had ever shown. The others seemed to watch him, casting furtive, sidelong glances from time to time, as if expecting a signal, and adding little if any energy to their operations under the sting of the language produced by O'Hara for their benefit.

The dump was half a mile from the point where the steam-shovels were at work in the cut. At the particular spot where the cars were unloading, the temporary track ran close to the river, with scant space for a man to stand between the outer rail and the steep bank sloping to the water's edge.

As the first train-load stopped, the boss was standing in this narrow strip, and, as it happened, just abreast of Drisko's car.

The crew hastened to remove the sideboards, and a heavy plank, carelessly handled, slipped from the stakes and struck O'Hara, bruising him from hip to ankle, and all but sending him into the river.

Scrambling to his feet, his eyes ablaze, his tongue unloosed, the angry man shook his fist at Drisko, pouring out a torrent of invective against Polacks in general and Drisko in particular. The big foreigner, leaning on his shovel, watched him like a cat.

Incensed by this calmness, O'Hara foolishly passed the limit by using a single epithet in the Polack jargon which conveyed the deepest possible insult. In a moment, Drisko leaped, the heavy steel shovel swung high above his mighty shoulders, descending with a crash upon the skull of the unfortunate boss and driving his body, like a log, to the foot of the embankment. There it lay, half in the water, a red tinge spreading slowly in the stream.

In a second Bedlam was loose. The Italians, huddling together with popping eyes, jabbered like monkeys. The Polacks rushed to Drisko's car, where the giant, holding aloft his fatal shovel, stood like a vengeful Colossus.

Seized with uncontrollable panic, he threw down his weapon and fled, running along the loaded train, leaping from car to car. It was this course which proved his undoing. There was quick Irish wit in the cab of the switcher, coupled as it happened, midway of the train, ten cars behind and the same number before.

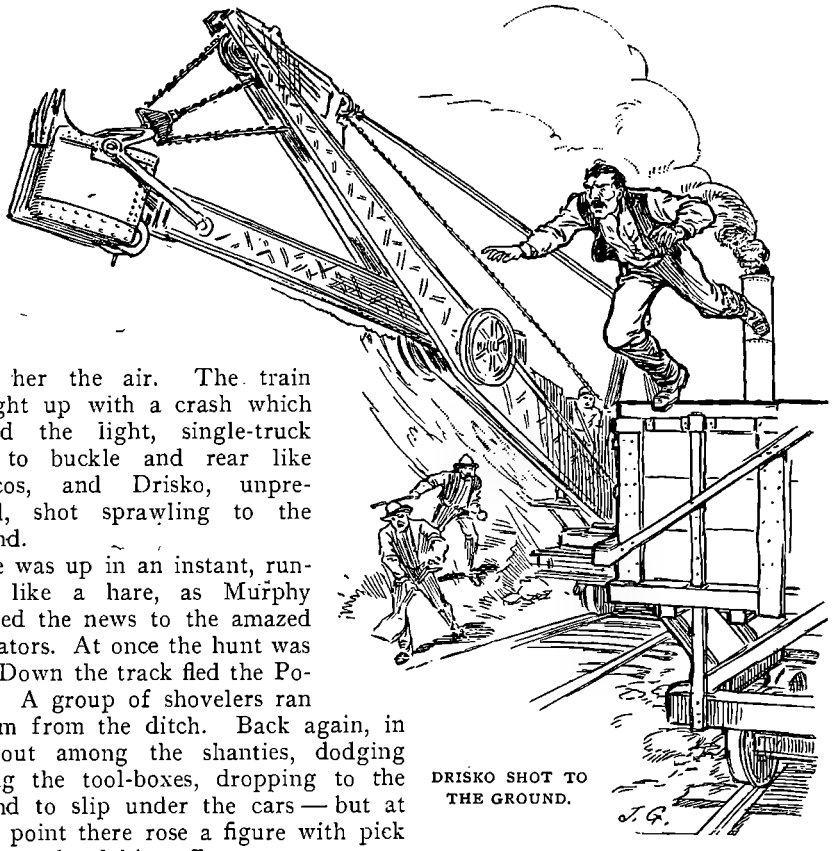
Yelling to his fireman to cut loose from those in the rear, Murphy, the instant his engine was free, threw his throttle wide for full speed. The long line of loosely coupled flats joggled with a sudden commotion which upset the fleeing Polack.

He lost his balance and fell, clutching wildly, his arms buried to the elbows in the soft earth of the load.

When he regained his feet, the train had gathered such headway that he dared not jump. Yet to remain where he was would be fatal, for already the cut was in sight. A minute more would bring him into the midst of the grading gang.

Drisko was paralyzed. Behind him the engine shrieked a succession of short, piercing blasts that spoke of danger. Murphy was calling for help. Drisko, looking up the track toward the sound, could see men running from their work.

Clancy, at his post on Bucephalus, leaned far out from his platform and peered under his hand at the rocking cars as they roared out into the open, the crouching figure of the Polack at the front. Abreast of Bucephalus, Murphy



DRISKO SHOT TO THE GROUND.

gave her the air. The train brought up with a crash which caused the light, single-truck flats to buckle and rear like broncos, and Drisko, unprepared, shot sprawling to the ground.

He was up in an instant, running like a hare, as Murphy shouted the news to the amazed spectators. At once the hunt was on. Down the track fled the Polack. A group of shovelers ran at him from the ditch. Back again, in and out among the shanties, dodging among the tool-boxes, dropping to the ground to slip under the cars — but at every point there rose a figure with pick or bar to head him off.

The circle was closing. There was open space on one side—toward the bank. Drisko darted that way, upsetting a single opponent. Up the slope, clinging, crawling, sliding, digging with toes and claws—his heart pounding, the breath whistling in his chest, a wild hope before him of reaching the top of the bank and seeing the open country of freedom.

Taken by surprise, for a few moments no one made a move to follow him. Suddenly they rushed the bank in pursuit. Overhead, Drisko turned and cursed them. He threw stones upon their heads and he dashed handfuls of sand into their eyes.

Blinded and at a disadvantage, they faltered in the sliding earth. Drisko turned again like a wild-cat at the bank.

He fought his way up with nails, with elbows, with knees.

The fringe of green turf along the edge of the slope, the grass waving in the breeze, grew nearer, nearer still.

Almost up! a moment now, and he would be safe!

A huge black shadow enveloped him. He looked. Poised in the air over his head was the great bucket of Bucephalus. It swung swiftly down and rested on the edge of the bank in front of him, barring the way.

Drisko glared. He turned and looked down and saw Clancy standing on his platform half-way up the arm of the crane, his hands on the levers, his face white as paper, his eyes riveted upon the figure above.

Cold sweat trickled upon the Polack. A mortal terror clamped its hand upon his heart. He knew Clancy's friendship for the dead man. He knew how the huge machine responded like a living thing to the will of the craneman—and hope deserted him.

He rested, his gaze fixed on the waiting groups below. Desperate anger seized him. He shouted and shook his

fist at the great steel bulk which stood between him and freedom. Then like lightning he dashed up the slope trying to skirt the bucket before Clancy was aware of his purpose.

But the Irishman was ready for him. The bucket lifted a little from its place, brushed silently along the grassy edge, and came to rest again just in front of Drisko. He waited, then he tried the same tactics in the opposite direction, and again the bucket floated quietly before him, barring his path.

Drisko began to grow calmer with a deadly calm. Clancy was prolonging the agony. He was playing with him—delaying the moment when he would finally finish him.

The men at the foot of the bank knew this. They were watching. They knew Clancy. He would do the trick.

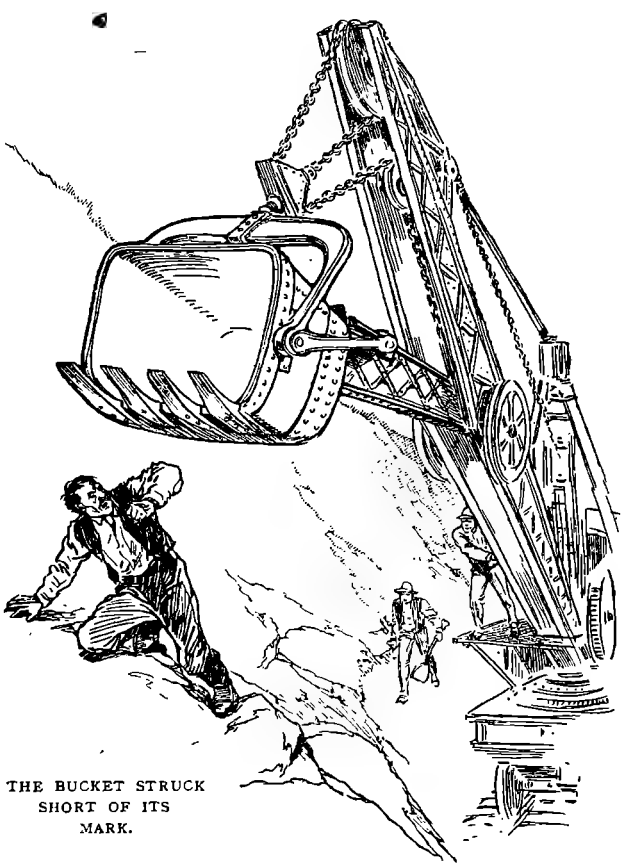
Drisko looked at the bucket, and began to think. He measured the bank with his eye. He regarded the crane with attention. He knew that it had a definite radius of operation beyond which it could not go, until its car was moved along the track.

But Bucephalus was already at the end of the spur, which ran out into the sand at the base of the hill. Drisko took courage. Safety could yet be found in one direction—away from the zone within which the crane was free to act.

The cunning Polack edged an inch toward the left. The movement passed unnoticed. Another inch. Clancy did not stir. He might make it with a rush. In order to disarm suspicion, he stretched himself as though in utter exhaustion—he spread-eagled on the slope.

To the watchers below it seemed as if he had given up. Instead, he was gathering all his energies for the final effort.

He rolled his bloodshot eyes upward. Ten feet! It was not far. If he could make it, he was safe. Clancy could not touch him. He must make a diagonal, for thus he would gain both in lateral distance and height.



THE BUCKET STRUCK SHORT OF ITS MARK.

Lying motionless, Drisko contracted toes and fingers as they clutched the soil. Suddenly he sprang.

Five feet! Eight feet! He would make it! One more supreme effort!

Clancy had been taken by surprise. Anticipating a move in the opposite direction, where the bank was less steep, he was unprepared for the cunning exhibited by the Polack. But he acted like lightning.

Already his crane was swung to the left as far as it could go. He thrust the bucket-bar after the fleeing Drisko, the great scoop swinging at its end. For once his eye played him false. The bucket struck short of its mark, and checked impotently a foot behind its object.

A yell of triumph burst from the Polack. With-

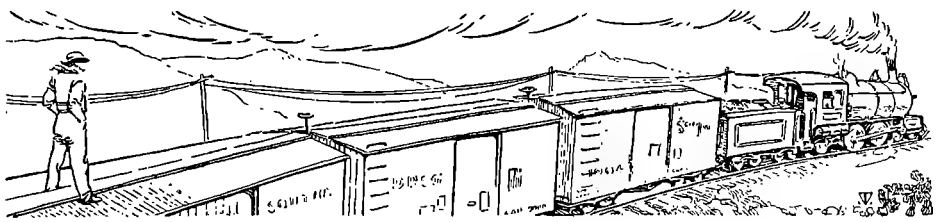
out seeing it he felt the failure of Clancy to seize him. Another short scramble and he was safe. He could almost feel the free air of the open country blowing about his ears, and in the ecstasy of his joy he turned in his tracks to shake his fist at the baffled engineer.

The move was fatal to the unfortunate Drisko. Though Clancy had been checked in his last effort, he was not yet outplayed.

The bucket slid swiftly down upon its cable; again it started in its ascent. Its steel lip bit deep into the bank behind and beneath the exulting fugitive. It swung aside, leaving a huge cavity; and into the opening, buried in tons of slipping, sliding soil, whirled the helpless form of the Polack, with staring eyes and clutching hands.

Clancy drew the latch, and the bucket yawned and disgorged its load. The hinged bottom slammed shut.

Once more the boom shot out. Once more the steel lip bit into the bank—the cable singing through its pulley. The great crane turned upon the pivot—and when Clancy drew the latch, there plunged headlong to the ground, amid the group of waiting men, the limp and crumpled body of Drisko, who should have been an automaton with a number, but who had insisted upon being a creature which thought.



RIGHTS OF A SHIPPER.

A SHIPPER was recently threatened with direful consequences in Fort Worth, because he dared open his car and inspect his own goods, which will likely bring to a constitutional test at once the question of shipper's rights.

An Oklahoma man consigned a car-load of corn to himself in Fort Worth, and arrived on a passenger-train several hours before the freight. The bill of lading, as usual, went to the bank, but by the time the corn was ready for inspection the bank was closed, and the shipper was unable to prove ownership to the car in the prescribed way. He informed the railroad officials that he would open the car and inspect the corn without this formality. They threatened to institute legal proceedings if he should break the seal on the car-door. Not deterred by these threats, he entered the car, and took a long look at his corn, whereupon the railroad's attorneys announced that the court would be appealed to.

A proceeding of this kind will bring into the courts the question of a shipper's authority over his cargo. The judiciary will decide whether the shipper can break a seal on a car and look at the contents before proving ownership to that car, even though, as in this instance, the proof is locked in a bank vault, and the cargo needs attention.

This is the first time in the history of Texas railroads that such a pointed instance has arisen, and railroad men, as well as shippers over the Southwest, will watch the outcome.

The railroads have good reasons for refusing to allow these seals to be broken. For instance, if the wrong man should open a car of corn, the original shipper or consignee might turn it back on the railroad, and force the company to pay damages.

POWER FOR THE GREAT NORTHERN.

GREAT NORTHERN engineers have begun work in the Lake Chelan district for development of 80,000 horse-power of electrical energy to be used in operating the western division of the railroad. Title to the power-sites was secured several years ago. The Great Northern is now running its trains through the Cascade Mountain tunnel by electric power, but the Leavenworth station, which supplies the current, develops only 12,000 horse-power. It is one of the largest electrification plans on record.

The Founder of the C. P.

BY ARTHUR B. REEVE.

BACK in the early '50's, when almost every other man said that a railroad across the mountains of the Far West, joining East and West, was an absolute impossibility, Theodore D. Judah stolidly took the other view. Even in the face of seeming insurmountable financial and engineering obstacles, nothing could thwart the purpose of that great man. He simply said: "It *must* be built. I *will* build it."

And he did. The story of the winning of the West has been told many times, but Theodore D. Judah deserves the "nation's crown of glory." But for him a work which has inspired the admiration of engineers and the pens of romancers might have been delayed for years.

He was a maker of railroads and a maker of history.

How Theodore D. Judah Saw the Possibility and Turned the Dream of Joining the East and the West by Rail into Reality, by Hard Work and Indomitable Purpose.

WHO was the father of our transcontinental railroads? Perhaps you have thought it was Leland Stanford, or Collis P. Huntington, or Mark Hopkins, or Charles Crocker, or maybe all of them combined. They, indeed, have had the credit—and in after years whatever debit there was, too, for this early example of how a great project can be ultimately "high financed."

Then, too, there were the dreamers of the fifties, who talked long and confidently of their schemes to unite the two oceans — Asa Whitney, Hartwell, Carver, and the rest. Though they never really built a mile of the roads, they have received precious little credit for getting people interested in the idea.

But the real father of the Pacific roads, the man who made practicable the plans of the dreamers and actually interested the money of the doers—the man who literally gave his life to the project—he to whom credit is really due, is a man whose name you will not find in any of the biographical dictionaries or histories—Theodore D. Judah.

If this article succeeds in restoring his name to its rightful place in railroad history, it will have accomplished its purpose. Any one who cares to delve back in the dusty files of Congress in the early sixties, or the time-stained first reports of the old Central Pacific, can verify the work done by Mr. Judah.

Intended for the Navy.

Theodore Dehone Judah was born in Bridgeport, Connecticut, March 4, 1828. He was the son of the rector of St. John's Episcopal Church. His father came of an early Connecticut family. His mother was from Virginia, and the boy was named for an uncle, Theodore Dehone, bishop of the Episcopal church of that State, his father's closest friend.

Mr. Judah's parents intended that he should enter the navy, but he did not re-

ceive the expected appointment. He was then sent to the Troy Polytechnic Institute, also known as Rensselaer, which was then the only school of its kind in the world.

There he was educated for engineering, and while he was still a student at Troy "Tech" his father died, and he had to take care of himself.

The railroad was then a new industry. It fascinated him. His first position was on the engineering staff of the Troy and Schenectady Railroad. His career rapidly broadened. Next he went to the New Haven, Hartford and Springfield Railroad, the Connecticut River Railway, and the Buffalo and New York Railway, now known as the Erie.

His next position was on the Erie Canal, where he built a section between Jordan and Seneca Falls, New York. From there he undertook the construction of the Niagara Gorge Railroad. This was discussed widely in the newspapers of the time as a feat.

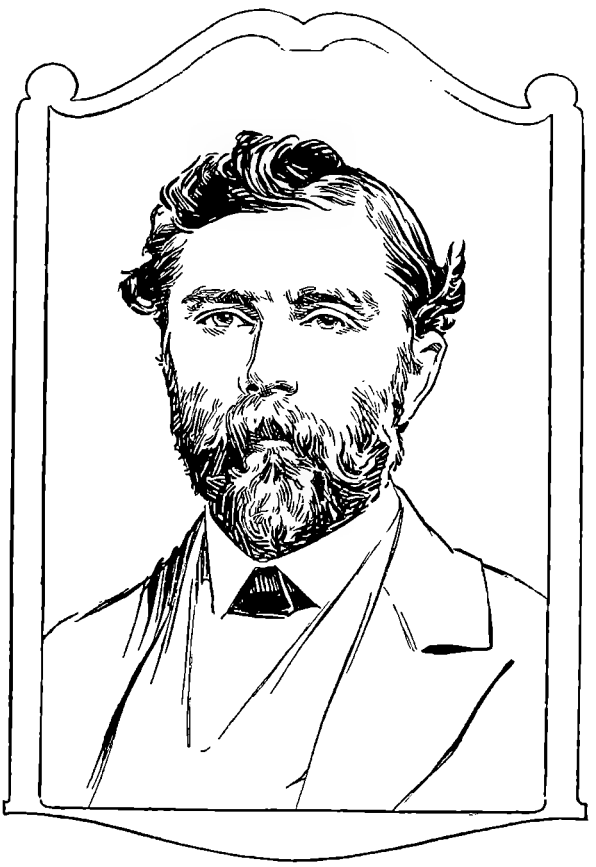
It attracted the attention of some people of Sacramento, California, who were looking for an engineer to build a road from Sacramento to the gold-diggings of Folsom. Judah was recommended by Horatio Seymour, of Utica, afterward Governor of New York, and was hired by Colonel Charles L. Wilson, of Sacramento. Thus he came to be associated with the great work of opening up the Pacific coast by railroad.

When he was only sixteen he had been inspired by the agitation of Asa Whitney for the construction of a railroad across the continent. Whitney was an engineer of note, who had worked on railroads in the Mohawk Valley in New York. He had been canal commissioner, a former president of the Reading, a partner of Matthew Baldwin in founding the Baldwin Locomotive Works, and the inventor of the process for making cast-iron annealed car-wheels, which made them durable and safe.

During the fifties Whitney had advocated the building of a railroad westward from Lake Michigan across the plains, through the South Pass of the Rockies, and then over the Sierras to San Francisco.

John C. Fremont had traversed the route, and had declared such a project feasible. Senator Thomas C. Benton had already introduced a bill in Congress for a national highway across the continent by rail wherever possible, by wagon elsewhere; but it had not been passed. In 1853, Congress ordered surveys made, and five routes were laid out —all of which, by the way, are now approximately followed by the great transcontinental lines.

Whitney's scheme was utterly fantastic. He expected the government in the first place to agree to give him in all ninety-



THEODORE D. JUDAH,
BY WHOSE UNTIRING WORK THE CENTRAL PACIFIC ROAD WAS CONSTRUCTED.

two million acres of public lands as he carried his road ahead. Dr. Carver's scheme was equally, if not more, extravagant. Even at this early date there were those who saw through such demands, like William M. Hall, who believed with George Wilkes that the government could best construct the road itself.

Others — like Plumbe, Loughborough, and Degrand—proposed equally injudicious schemes. Judah was convinced that private enterprise should do it, but that government aid of a more moderate kind would be sufficient. In 1860 the Republican party was pledged in its platform to accomplish this undertaking.

In those early days in California Mr. Judah was the leading engineer in all railway enterprises. After completing the Sacramento Valley Railroad—thirty-two miles to Folsom—in February, 1856, he undertook to interest capitalists of San Francisco in the project of a transcontinental road. Failing there, he devoted his time to the moneyed men of Sacramento. He believed that the road should be pushed eastward, overcoming first the most difficult obstacles, that with the Sierras surmounted, the Rockies and the plains were easy. The remainder of his life was devoted to this work.

All of his time, from the spring of 1856 to the fall of 1859, was spent in Washington, lobbying for a bill granting public lands for this purpose. Congress at that time was torn by sectional strife between North and South, and in no mood to seriously consider uniting East and West. Little real interest was paid to Judah's plans.

Called in the Public.

When Congress finally adjourned in 1859, Mr. Judah returned to the Pacific coast to take up the fight at the other end. There he organized a convention of delegates from almost every county of California, Oregon, Washington, and Arizona. It was a large and enthusiastic convention, and he was the spirit of it.

He laid before them all the information he had gathered on the various routes available, and they chose one over which the Central Pacific was substantially constructed as first outlined by him.

He was appointed by the convention its official agent to proceed to Washington, present copies of the proceedings to the President, the Cabinet, and Congress, and urge the passage of an act that would insure the construction of the road.

For the two following winters he labored in Washington, making but slow progress. Then the war broke out. It was evident that such a period was anything but favorable to such a project, so he returned to the coast.

Although he had spent over $2,500, the only expense bill he submitted was forty dollars for printing. Meanwhile, he was organizing his forces in California to continue the agitation in Washington.

Failing to convince San Francisco, he succeeded in interesting a group of merchants in Sacramento. They organized the Central Pacific Railroad Company on June 28, 1861, under the laws of California. It had a capital stock of $8,500,000 in shares of $100 each.

The Original Owners.

The articles of association show nine persons—Leland Stanford, who dealt in provisions and groceries; Charles Crocker, who, with his brother, ran a dry-goods store, including a job-print shop; Collis P. Huntington and Mark Hopkins, partners in the hardware business; James Bailey, L. A. Booth, D. W. Strong, Charles Marsh, and Theodore D. Judah.

Among the first subscribers for stock, Bailey, Crocker, Hopkins, Huntington, Judah, and Stanford each took 150 shares; the others less. Stanford was the president; Huntington, vice-president; Hopkins, treasurer; E. H. Miller, Jr., secretary; E. B. Crocker, attorney, and Judah, chief engineer. They were also the first directors.

Judah organized engineering parties, and ran barometric lines over twenty or more suggested routes. All the results tallied with his first observation: that Donner Pass was the easiest way over the Sierras, both for distance and grade.

He proposed to follow the Truckee River from the outlet of Lake Donner, about fourteen miles north of Lake Tahoe, and then go through the eastern range of the Sierras and the Humboldt

Desert. The distance from San Francisco to the Truckee River was 123 miles, and to the State line 145 miles.

More Work in Washington.

His report having been made, Mr. Judah was again sent to Washington. He met the members of the House and Senate Committees on the Pacific Railroad, and was appointed secretary to both committees, with the privilege of the floor in both houses. After many compromises the Pacific Railroad act was passed July 1, 1862.

The original act provided briefly for the construction of a railroad and telegraph line from the Pacific coast at or near San Francisco to the eastern boundary of California, across Nevada, and to the Missouri.

For all practical purposes it was as if simultaneously from the wilds of western Nebraska, at about Omaha, and from Sacramento, two roads — one westward, the other eastward—were to be built—the Union and Central Pacific, respectively—until they met.

The war seriously interfered with the Union Pacific project; and, though the first tracks were laid with much ceremony, little was done to push it. Five branches had been planned to the largest Western cities along the Mississippi and Missouri. At that time eight or ten thousand prairie schooners, carrying yearly 40,000,000 or more pounds of freight, set out from the frontier cities. The only other way was by Panama. The need was, therefore, pressing and growing rapidly.

The Issue of Bonds.

The Secretary of the Treasury was instructed to issue bonds to the company constructing the roads at the following rates: From the coast to the Sierras (about 120 miles), at the rate of $16,000 a mile; across the Sierras (about 150 miles), at the rate of $48,000 a mile; across the Great Basin (about 900 miles), at the rate of $32,000 a mile; across the Rockies (about 150 miles), at the rate of $48,000 a mile; east of the Rockies (about 650 miles), at the rate of $16,000 a mile.

Figuring the public land at about ten million acres, bringing at least $1.50 an acre, it will be seen that very substantial aid was thus given without the subscription of much private capital. The total cost was supposed likely to come to $100,000,000, and each road was to bear approximately half.

The Central Pacific also received further grants from other sources. The State of California agreed to guarantee the interest on bonds to the extent of $1,500,000 for twenty years, which alone was calculated to amount to $3,000,000. The city of San Francisco made a loan of $400,000 of city gold bonds at seven per cent for thirty years, and Sacramento gave thirty acres, including 1,300 feet of water-front, worth some $300,000. Private stock subscriptions at various times up to the completion of the road amounted to four millions more.

This original act provided that the company must build the first fifty miles within two years following its acceptance of the terms, and fifty miles additional each succeeding year. In December, six months after the passage of the act, the company assumed the responsibility of carrying it out. Mr. Judah lost no time in filing with the Secretary of the Interior the necessary maps and papers relating to the route so as to secure the withdrawal from sale of land along the line.

Many Obstacles.

He made arrangements in New York for rails and other equipment for the first fifty miles. All this had to be shipped by sea. It was ten months before it reached San Francisco. Though the grading was actually begun the following February, it was not until October that the first equipment arrived in Sacramento.

Nothing can better demonstrate the character of Mr. Judah's services than the following letter, which was subscribed to by forty-two members of Congress and seventeen Senators:

WASHINGTON, June 24, 1862.

T. D. JUDAH, ESQ.:

DEAR SIR: Learning of your anticipated speedy departure for California, we cannot let the opportunity pass with-

out tendering you our warmest thanks for your valuable assistance in aiding the passage of the Central Pacific Railroad bill through Congress. Your explorations and surveys in the Sierra Nevada Mountains have settled the practicability of the line, and enabled many members to vote confidently on the great measure, while your indefatigable exertions and intelligent explanations of the practical features of the enterprise have gone far to aid in its inauguration.

Very truly yours,

JAMES H. CAMPBELL,
Chairman Select Committee on Pacific Railroads.

Surveys were again made in October, 1862, and five possible routes over the Sierras were laid out for final consideration, according to the last report made by Mr. Judah, July 1, 1863. That chosen lay from Sacramento to Auburn, Illinoistown, Dutch Flat, and by Donner Pass, the first fifty miles carrying it to New England Mills.

He gave the estimated cost of this first division for grading, masonry, bridging, ties, track-laying, locomotives, cars, machinery, shops, and all other contingencies as $3,221,496, including a large bridge over the American River. The contractors for the first eighteen miles were C. Crocker & Co.

The first six locomotives ordered show the "state of the art" at that time:

Name.	Weight, tons.	Number of drivers.	Diam. of drivers, ft.	Diam. of cylinders.	Stroke, ins.
Gov. Stanford.....	46	4	4½	15	22
Pacific	47½	4	5	16	24
Atlantic	47	4	5	15	22
John Conness	50	6	4	17	25
T. D. Judah	18	2	4½	11	15
C. P. Huntington...	18	2	4½	11	15

The First Equipment.

There were six passenger-cars, two baggage-cars, twenty-five box cars, and twenty-five flat cars. The rails were twenty-four feet long and weighed sixty pounds to the yard, 6,000 tons being the first order. The ties were of redwood, 68,100 for the first section.

After the first eighteen miles was completed and running seven months, ending November, 1864, the road had carried 48,941 passengers. Its receipts were $103,557; operating expenses, $56,289, and net profit, $47,268. Not a bad first report.

Trains ran at an average speed of twenty-two miles an hour, including stops. The whole fifty miles were completed September, 1865, time being extended.

When it had become evident that, in spite of the energy with which the work was being pushed, the first fifty miles could not be completed within the original two years fixed by Congress, Judah again sailed for Washington, October, 1863, to secure an amendment to the act.

He chose the quickest route, Panama, and while crossing the isthmus was stricken with Panama fever He died in New York, November 2, 1863, a martyr to one of the greatest industrial projects the world has ever known. His place was taken by Samuel S. Montague as acting chief engineer.

He Made History.

Mr. Judah married Anne Pierce, of Greenfield, Massachusetts, May 10, 1847, in St. James's Church of that village, She died September 2, 1895. They left no children. His nephew, H. R. Judah, is now assistant general passenger agent of the Southern Pacific in San Francisco.

Though he died at the very outset, the work he began was bound to go on to completion. The final meeting of Central and Union Pacific, and the driving of the last spike at Promontory, a few miles west of Ogden, Utah, on May 10, 1869—1,084 miles from Omaha and 850 from San Francisco—the rise and dominance of the powerful system; the building of other transcontinental systems—seven of them now—the reorganization of Union and Southern Pacific, and the entrance of Harriman—these are now but the nuggets of history.

Theodore Dehone Judah was the real founder. He was the most influential advocate, and he had the brains. His manifold talent in engineering and in interesting practical men of politics and finance really made possible the stretching of the first great steel arms across the continent. Had Judah lived, he would have stood forth as one of the great figures in American railroading. It is not too late even yet to give him his just place.

GONE MAD WITH THE HEAT!

BY EDGAR FRANKLIN.

Belcher Was Tired of His Job, and Had a Peculiar Way of Showing It.

HE sound called, in Wilkes's lazy way—Wilkes up the line at Bradford — and Belcher awoke from his doze and answered.

"Seen the president?" inquired his sounder.

Belcher ticked back that he had not, and inquired if there was any news.

The sounder said: "Old man's either gone through on one of the fast trains or is going through. Stop his train and thank him for me. Now, shut up!"

Belcher snarled as he turned away from the table. That was Wilkes's facetious way of saying "Good morning" over the telegraph wire. It made him tired.

Everything made Belcher tired. He rose wearily and shuffled out to the little platform of Raynor Station. Twelve years of looking at that platform had made him dead tired.

He looked around. Down the line eastward, Belfield, presumably sweltering in the heat, and twenty miles away. Up the line, Bradford, another twenty miles away. North, an endless strip of flat Middle West country, uninhabited, offering no excuse for existence save as a haven for some solitude-loving salamander, quivering just now in the awful sun. Southward precisely the same thing, with the main road a mile away and out of sight, and the heat quivering more violently, if possible.

Oh, yes, it was unusually warm that day, Belcher reflected, as he glanced at the thermometer, and noted that, in the shade, it stood just 114! It was hot enough to make a man sit down again, so Belcher sat on the edge of the platform, his face in his dry palms.

Poor old Belcher! At thirty he looked forty, and felt fifty. He had entered the W. and E. service, right here at Raynor, when eighteen years of age, a graduated telegrapher at twelve dollars a week.

He had also assumed the duties of station, freight, and express agent, porter, ticket-clerk, track-walker and information bureau to the two or three dozen who detrained there monthly. And he still earned twelve dollars a week.

Not that he had not been buoyant and ambitious at first. Why, at first, he would have bet ten years of his existence that he'd be chief train-despatcher, at the very least, by this time. But the monotony of the thing, the heat in summer and the cold in winter, the twice-a-day tramp, with the station, and Benker's shabby farmhouse at the respective ends, had worked into Belcher.

He had saved money weekly, to the tune of six dollars, to be sure, but after the first year he had no mortal idea of why he was saving it. He knew nobody, and he saw nobody, and he spent nothing. Unable, even after experimentation, to cultivate a taste for strong drink, and so drown his monotony, he was a total abstainer, and a total everything else, it seemed to Belcher.

What he wanted was to get out of Raynor Station, or get a substantial raise at least, and he hadn't ambition left to run down either. He'd written four times in the last six years to the president himself, and received no answer. He'd spoken to his immediate boss, and been told to fade away—that a good yellow pup for a watch-dog could attend to things at Raynor, and that twelve dollars a week was a hideous waste of money.

Now, with the blazing eastern rails blinding his near-sighted eyes, Belcher recalled drearily that he hadn't had ambition enough to argue the thing. What he needed was spunk. Monotony had knocked the last bit out of him, that was all. Belcher groaned aloud as he realized it through the flood of perspiration. He was lost, dead lost—at thirty!

His head had a queer feeling, too. He rubbed it stupidly. Probably it was the heat; Belcher didn't care much. He only wished he had the president sitting there in that soundless hell, to talk things over and say that he was sorry the matter hadn't been attended to before, and that he'd raise Belcher at least five dollars at once. If he didn't say that, Belcher had a notion that he'd throttle him.

With another groan, Belcher shuffled to the end of the platform and extracted from the closet something of his own contrivance—a sledge and a strip of iron, with a small spike at either end. Whether he felt lazy or not, he'd have to pull together that crack in the tie next the switch and keep it from spreading wide open before the track repairers finally worked around to replacing the tie—some seventy or eighty years hence.

Wearily, he shuffled across the track and looked the thing over. Yes, about two weeks more, or a good rain, and there'd be one tie split in two and a loose rail.

Why the devil didn't the company keep up their road. What did he care whether their stock was a mere two-per-cent solution of the first issue?

Wrath surged up within Belcher. He glared at the switch and the green and red, and white eyes glared back with a sort of fiendish grin at the twelve-dollar derelict.

Recognizing the insult as personal to himself, Belcher suddenly raised his sledge and, smashing the lamps, left the remains at an angle of perhaps fifteen degrees from the earth.

He felt decidedly better.

At least, he felt better for an instant, until he glanced back and realized, with a sort of sickly mirth, that he'd locked the switch tight, and the westward local, due in ten or twelve minutes, couldn't get into her siding to let the east-bound express go by!

There was no way of fixing it, i mechanism of that particular s locked or open, usually declined to ate with anything less than a ha and now it was twisted and brok bits! Still more, the morning expre on mighty close time. And—

"What the dickens are you doing?" a loud voice buzzed into his spinning brain.

Belcher turned quickly. He stared. He stared harder still! As certainly as he breathed, it was President Bullton, black-clad, puffy, red-faced, the very gentleman with whom Belcher had wanted to hobnob—or slaughter!

"That was deliberate destruction of the company's property!" thundered the bulky man. "I saw it—"

Momentarily, he saw no more. Belcher's hard fist struck him in the region of the solar plexus, and he sprawled backward, with the lone station-agent doing a wild war-dance over him.

Mr. Bullton did not struggle. For the time he was altogether too dazed. Belcher stepped back and laughed somewhat wildly. Inspiration had fairly blasted into his dulled brain.

There was his strip of iron to hold the tie together; there was his sledge; there was Bullton's motionless foot and ankle, laid mathematically along the tie.

In five seconds Belcher was down on his knees, and had the spiked strip clapped over the silk-shod ankle. In another five seconds the spikes themselves were driven fast, with a nice calculation that would allow them to be pried off in ten seconds, but driven deeply enough that Bullton might struggle until he was exhausted unless he found a tool within reach.

Belcher tossed the sledge a dozen feet away, and grinned at his captive—grinned for a minute only. He sobered quite suddenly. To be sure, he had Bullton pinned down in such fashion that he was in no danger whatever, for the switch was locked at both ends; but—the two trains!

His head cleared up curiously, and he bounded across the tracks to the station and into the closet. He came out with flags and bulging pockets, and ran up track a little. He torpedoed the rails very thoroughly, and planted red flags between them. He raced back to the station, and halted a minute as he heard the Raynor call.

He answered. Then he fell back with a sort of whooping, laughing sigh of relief. The local was stalled away down at Belfield, and would wait for the express to pass there.

So, it was all right. Nobody risked being killed, after all. And as suddenly as the tension had been put on him, just as suddenly it snapped, and Belcher began chuckling and rubbing his head.

He would stop the express!

He'd throw his job gently into the air, and ride down to Belfield on the express. He'd have to throw the job now, anyway. He'd draw the accumulated hundreds that derived from the weekly six-dollar money-order mailed every Saturday night for twelve years at Raynor post-office. He'd go to New York and buy seven suits of clothes and an automobile and raise all thunderation for a week—and then commit suicide. He certainly would. He'd do just that. He needed a little change.

But—but what the deuce had he forgotten, just in the last few minutes?

Oh, yes! He'd nailed down the president of the road to one of his own sidings. That was it. Well, he'd go out and have a chat with him, and scare him just for fun.

Quite happily, therefore, Belcher tripped through the awful heat to where the bulky man lay prostrate, exhausted after a fruitless struggle with his bond. Belcher squatted cheerfully beside him, remarking:

"Well, old President Bullton, how's things coming?"

"Lemme up!" came hoarsely from the captive.

"Aw, wait a while," said Belcher pleasantly. "The train isn't due for two or three minutes."

"The what?"

"The train that's going to come into this siding full speed and make you into sausage meat," the station-man explained cheerily.

A shriek rose from the red, dripping man.

"Great Scott!" he screamed. "I'm not Bullton, if you mean the president of this road. I'm the secretary of a casket company that—"

"You'll get one cheap, then," Belcher commented.

"—is thinking of building near here. I just drove over from Raynor to look at your freight platform and meet some of your business men—"

"So you're not Bullton!" gasped Belcher, with what seemed to him excellently quick and reasonable thought. "Well, then, if you're not Bullton"—he reached for the sledge—"the best thing I can do is to wipe you right out now."

A hoarse yell for help died away.

"Because, if you're not," explained the station-man, "you'll go to work and tell Bullton about this, and I'll lose my job."

"Well, I *am* Bullton!" choked the prostrate figure. "I'm Bullton, and—"

"Yes, I thought you was Bullton," said Belcher dryly, as he sat down again. "Well, I'm Belcher. Remember, Belcher?"

"Oh, yes!"

"Then why didn't you answer one o' those four letters—hey? Didn't I ask you politely to give me a transfer to some live station, or give me a good raise if I had to stay here?"

"Why—they—they must have been overlooked, I think," stuttered the other. "I—meant to give them attention, of course, but—"

"But it wasn't worth while, eh? It was all right to leave me down here, without even a human being to look at, from early morning till late at night; it was all right for me not to have a porter; all right for me to be doing laborer's work; all right for me to be tending to the express business and breaking my back with big boxes and galloping back to the key. All that for twelve a week, and not a cent of raise in twelve years. Oh, it was all right! But it's got you tied down good and tight now, and—by ginger, the express is coming!"

"Whatever your name is, let me up. I'll give you a raise. I'll give you a raise, to commence the day you took the job. I swear I will! I'll—"

"Oh, no!" said Mr. Belcher, who was enjoying things with a sweetly clear conscience as he observed anew the locked switches. "You think it over in the next world. See if flowers for the livin' aren't better than flowers for people you've killed off, and still made 'em keep on living."

"Man! I—"

"Why, if your old watered-stock road had spent the price of double-tracking

through here, you wouldn't be where you are now."

Then, oddly, brakes began to scream and hiss, and a big train loomed up from the west, slowed down, and came to a halt.

Passengers were looking out of the windows. They began pouring out. Right in front was Cousin Tom, who drew a fat salary in the claims department. He gripped Belcher by the shoulder and dragged him aside after one look at the captive.

"Did—you—do—that?" Cousin Tom demanded in one word.

"Certainly," said Belcher calmly. "That's Bullton. He wouldn't give me a raise. I was playing a joke on him. I—"

"Shut up!" hissed the claims man. "That's no more Bullton than you are, although he looks a little like him. Bullton's right over there in his private car, reading a paper. He—" Cousin Tom glanced back at the streams that were filing curiously from the train, and dashed the drops from his brow with a whispered:

"Go crazy!"

"Huh?" said Belcher.

"Wiggle! Wiggle, you idiot! Throw your arms about in the air! Wiggle! I say, Wiggle!"

Belcher wiggled. Indeed, he found it amazingly easy to wiggle just then. He wiggled up, down, and sidewise. He wiggled in sweeping curves, short curves, wide angles, and very acute angles. His head wiggled to his own perfect satisfaction, for it was spinning gaily around, with the root of his neck for a pivot.

Cousin Tom was waving back the people. He took a terrible, compelling grip on Belcher as he whispered: "Now, laugh to beat blazes!"

Belcher laughed obediently. He laughed softly and nicely at first. He felt that he could do better, and laughed at the top of his lungs. He caught sight of the figure nailed to the switch, and he laughed frenziedly, furiously, and with more real enjoyment than he had ever known in his life before.

He had a notion that Cousin Tom was saying in silly fashion:

"It's all right, gentlemen. If one of you'll please give me a hand getting him to the baggage-car? It's all right, sir, thank you. He's just gone temporarily mad with the heat!"

MOVING-PLATFORMS FOR NEW YORK.

A Neglected Form of Transportation That May Get a Good Try-Out in the Metropolis.

THE serious consideration by the Public Service Commission, of New York, of the plan to install a moving-platform in a Subway under Broadway, between Fourteenth Street and Forty-Second Street, calls renewed attention to this system of transportation. Although recognized as the most efficient means of transporting passengers, it has been employed only at expositions, such as that at Chicago in 1893, and at Paris in 1900, and possibly for this reason has often been considered somewhat in the light of a freak.

Nevertheless, as shown by the report of Mr. Seaman, engineer for the commission, a moving-platform, of the type proposed for New York, has not only a capacity very much in excess of that of the combined rush-hour service of the local and express trains of the present Subway, but for distances of four miles gives more rapid service than the present local service on the Subway, and even the local and express service combined.

The two principal objections, from a transportation standpoint, which have been raised against the moving-platform are: (1) That it requires a certain amount of agility to pass from the slow-speed platforms to the high-speed platform, and that this is not possessed by everybody, and (2) that the carrying capacity of the moving-platform is constant, so that the same service must be run at non-rush hours as at rush-hour periods.

There are also some objections from an engineering standpoint, and perhaps the principal one, based on the experience at Chicago and Paris, is noise. For these reasons there has been considerable reluctance to install the system in any place other than at a fair-ground, or similar locality, where the patrons need not ride unless they wish to do so.—*Electric Railway Journal.*

With the Veterans of the Erie.

BY PETER MULLIGAN.

PERHAPS no road in the country is so rich in capable and experienced veterans as is the Erie. Consequently, a day among the Erie veterans can be depended on to unfold to one a vista of early-day railroading hard to find anywhere else. It is impossible to railroad for forty or fifty years without having experiences that thrill, amuse, sadden, and mellow. But to get at the stories of those experiences is another matter.

If the average man asks an old railroad man about the things that have happened to him, the veteran probably will say that life has been pretty humdrum, and that he cannot recall anything worth relating. That is the difference between the man who can collect stories and the man who would go over the richest ground and never scent one.

Mr. Mulligan is one of the men who can go among the old-timers and get the stories of their experiences in the only natural and effective manner. Stories told under these conditions are the only stories worth telling. Read these and see if you don't agree with us.

Memories Revived in the Old Clubhouse, of the Days When Railroading Was a Business That Needed the Courage of a Soldier and the Strength of an Athlete.

IF you're riding on the Erie, and a gray-haired conductor comes along to take up your ticket, follow him to his lair and get him to talking. It will be worth the fare, no matter how far you are going. He will have a hundred stories to tell, and they will all be good ones.

There are forty of these veterans on the New York division alone, who come together every day in a clubroom near the terminal in Jersey City. Stick your head in the door, and this is about the first thing you will hear:

"It makes me laugh to think of the way you shoved freight around the yards, and I bossing you at the job."

"Yes, but you never laughed when I booted you off the caboose for stealing a ride."

"You never did that. You were a 'canaler' when I was breaking on the old Hackensack."

"When was this?" you ask.

"Along about '66 or '67."

They have all been in the service thirty, forty, fifty years, and, as they say themselves, they have seen "railroading that was railroading." Some of them are working pretty long hours right now, but they always have a joke on the end of the tongue. Only railroading could have mellowed men that way. What follow are but extracts from a number of pleasurable afternoons spent in this excellent company.

"Flat-Wheel's" Handicap.

"You can say what you like," began J. H. Gordon, who was a brakeman on the Erie in '71, at the age of sixteen, "but 'Flat-Wheel' Decker was a better

engineer than Jack Mooney. Of course, Mooney used to make the records, but how did he do it? Because he was one of those fellows who could always get his repairs done, while poor old 'Flat-Wheel' never got anything, and went out with a crippled engine half the time. I have braked behind him, and I don't ask for a better man.

"But it made him sore when Jack Mooney had to help him over the grades. You remember, they each took a freight out of Jersey City at the same time every night, 'Flat-Wheel' in the lead. Every other night we'd get stuck on account of lack of repairs, and Jack would boost us over the hills.

"Well, if we didn't like it, Jack did. He got to bragging about it until we were good and tired, and then we took the tail-lights out of the caboose so he couldn't see us. He'd have to be cautious, and that gave us time to get away again. But, sooner or later, on the run he'd generally hook on behind. One night, just as we were starting, Mooney called out of his cab:

"'Well, I suppose I'll be shoving you half-way over the division to-night.'

"'Will you, though?' called out 'Flat-Wheel.'

"When Jack Comedy, on the rear end, passed him, he called it out again.

"'We'll see to that,' answered Comedy, twisting his face in a way that showed he had the right name.

"Everything went smooth for a while, 'Flat-Wheel' coaxing along his old swallow-tail, and we had a good lead at Sterling Junction. So we whooped her up past Greycourt, and were going over the top of Chester before we could see Mooney coming down Oxford, but when we struck Winterbanker's crossing the old engine began to die, and Jack was gaining on us.

Comedy Takes a Hand.

"'He's got us!' I called out to Comedy.

"'Not yit,' Comedy answered, starting for the back of the train. 'No red-headed Irishman will put his nose ag'in' this caboose to-night.'

"And with that he leaned over the tail-end, with an oil-can, and greased the track for about a mile. We weren't there to hear Mooney's profanity, but the next day he and Comedy settled the matter after the way of all good Irishmen, and both of them carried black eyes for a couple of weeks."

"In those days," went on J. B. Honnell, who began braking in '78, but has had a passenger-train since '84, "the only way you could tell where the fellow ahead had hid himself was by keeping him in sight; and if he ever got away from you, you never could tell what curve he was lurking behind until you were pegging along close up to him again. And there was nothing slow about us either.

"There were some wild and reckless engineers, too, and every one regarded the next one as his enemy, and legitimate as a target. But the worst of the lot was Dick Davis. He would start out over the division as if he were the only one on it, and any one who was in his road had to get a move on and duck for cover.

"He didn't know anything about brakes, and wouldn't learn. His idea of stopping a train was to reverse and knock the daylights out of everybody on the train.

"You can imagine how comfortable it was to make a jump from one of those old one-truck jimmies they used to haul coal in and hope to land on the car ahead when you never knew when the whole train was going to take up about ninety feet of slack. Slippery nights, you never could tell when you were going to be shot from one end of the car to the other. I used to brake behind him, and I know what an unleashed demon he was.

"You've heard the story of the car that jumped the track and was never missed. Well, that was some of Davis's work. He reversed on the grade, broke one of the couplings, and when the rest of the train bumped in behind it knocked a jimmy right off the track into the ditch, and jammed so hard into the car ahead that the train ran away down Goshen grade, and they never missed the car until they struck the next hill.

"He liked to have a slow engineer ahead of him, and keep the caboose scared to death. One night it was like that, and there was some one hanging his head out of the caboose in front all the time. They had a cautious engineer, and when he came to the grade before you reach Augusta Bridge, he took it easy.

"Now, that was one of Davis's favorite places to make time, and it didn't make any difference to him because there was somebody on the rails. He threw her wide open, and leaned out to see what the other fellows would do. When they climbed out in a hurry and began to scamper over the top of the train, he laughed so he could hardly reverse her.

"It was all so quick, the other brakeman and I hardly had time to get to work, and only had a couple of brakes set when the shock came. Luckily, we each had a hold on a brake at the time; but there wasn't any need for us to go farther, the train stopped so quick. Davis climbed down in a jiffy and walked back along the train. Catching sight of the two brakes I had set, he growled:

"'Now, how could I make time with every brake set on the train?'"

"We used to skip along those days," broke in T. F. Clay, who has been with the Erie since '71. "One time there was a fog at Hackensack, and we were on the siding, east bound. One west-bound passenger had just come into the station when along came another and plugged her in the rear, and before any one had time to climb down a third scooted up behind and plugged the second. It took all day to clean up the mess."

"HE LEANED OVER THE TAIL-END, WITH AN OIL-CAN, AND GREASED THE TRACK FOR ABOUT A MILE."

"But speaking about engineers," went on Honnell, "Frank Abbott was the wicked one, and he had a fireman, Jack Hayes, who was a match for him. Most of the time they were on bad terms and wouldn't speak for days, and then they would make up and were thicker than thieves.

"Once, when they were on speaking terms, Frank was showing Jack a scare-

card of the game of policy which he was always playing, but just at that moment Jack was raking down the fire and the draft pulled the card right into the fire-box. Jack knew it would break Frank's heart to lose that card, so he leaned forward quick, sticking his head right into the fire-box, and jerked it out before it was even singed.

"It was pretty hot inside yet, and Jack wouldn't have done it for money; but there was that feeling between them. They would do anything for each other, but nothing for anybody else.

Man Who Owned the Track.

"There was a track-walker along in the seventies whose name I've forgotten who bothered Frank more than anything on the run. He knew it too, and took delight in it. His game was to see how near he could let a train come without being hit.

"One day we ran across him three times. The first time he stayed on the track until we had slowed down almost to a stop, and, encouraged by that, the next time he kept on ahead until we had stopped completely.

"The third time, I remember well, was about half-way between Statesville and Haunted House. Frank gave him plenty of warning but did not slow up, and he kept going right down the middle of the track.

"'You'll move this time, if I have to do it for you,' Abbott said, throwing his throttle wide open and shutting his eyes. I saw what was up, and I kept my eyes wide open, expecting to see that track-walker lifted over into the next county. But he saw what was going on, too, and you ought to have seen him jump. He didn't do it any too quick, either. Then he had the nerve to get up and shake his fist at us."

"He wasn't like Paddy Clinton," said Clay. "Seventy-five years old, and the spriest track-walker you ever saw. Coming down from Manette to Manette Junction, one day, we could see him ahead, driving a spike, with his back toward us. He had plenty of warning, so we didn't slow up, expecting that he would move out of the way.

"But he didn't hear, and by the time we could pull up we were right on top of him. We hit him on the slant, and down he went off the embankment into the bog, a fall of ten feet or more. We expected to find him dead, but he jumped up quick as he was hit and waved his hat: 'All right; go ahead!'"

Frank Abbott's Raspberries.

"Before I forget about it," began Honnell again, "I want to tell you about Frank Abbott and the raspberries. You all remember Jim Turner's eating-house, where we used to stop the immigrant-trains, and the good thing Turner made out of them.

"Abbott used to pass there about dinner-time with the freight, and Turner fed the crew at a fixed price. We ate whatever there was on the table, and the bill was always the same until, one day, there were some raspberries. They were good, so we ate all we wanted; and when it came to pay, those raspberries were extra.

"We were all a little sore about it; but Frank couldn't let up. For days he kept making remarks about the price of raspberries.

"Then he was put on an immigrant-train, and everything went along on schedule until they were getting up toward Turner's. Somehow, things began to go wrong then, and by the time they got to the eating-place it was just time to pull out, and no chance for the immigrants to go in.

"Turner was one of those fellows who was always outside seeing how things were coming on, and when he learned they were going to pull right out, he ran forward and said to Abbott: 'What's the matter with your engine? The other fellows always make it on time.'

"'I dunno,' answered Abbott, grinning, 'unless maybe she's got raspberries in her smoke-stack.'

"Now, when Jack Hayes got mad, he was just the other way. He'd stick his nose a mile in the air, and talked to nobody. He had a few hundred dollars in a saving's bank up the line, and one day it struck him he'd take it out. When he went around they were a little shy of cash, and told him he'd have to give them a few days' notice.

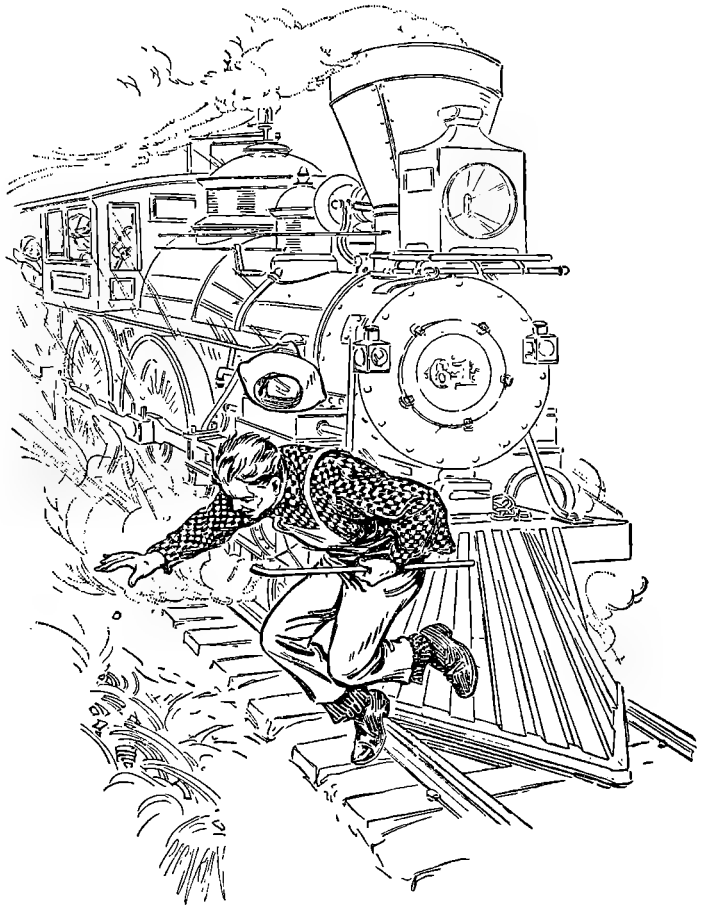
"'You won't give me my money—is that the way of it?' he asked.

"'No, that's not it,' the paying-teller tried to explain.

"'Well, that's the way it looks to me,' said Jack. 'But if you don't want to give me my money, you can keep it.'

"'I did, but I gave it to them. They didn't seem to have any, and I had plenty. So I just gave it to them.'"

The room where they were talking was once the barroom of a saloon which was encouraged many years ago by the Erie in the hope that a rival across the street



"YOU OUGHT TO HAVE SEEN HIM JUMP."

With that he walked out of the bank, and he never went back again. Two or three years afterward the bank broke, and some one of the boys were bemoaning their loss. One of them said to Jack:

A Gift to the Poor.

"'You lost some money in it too, didn't you, Jack?'

"'I did not.'

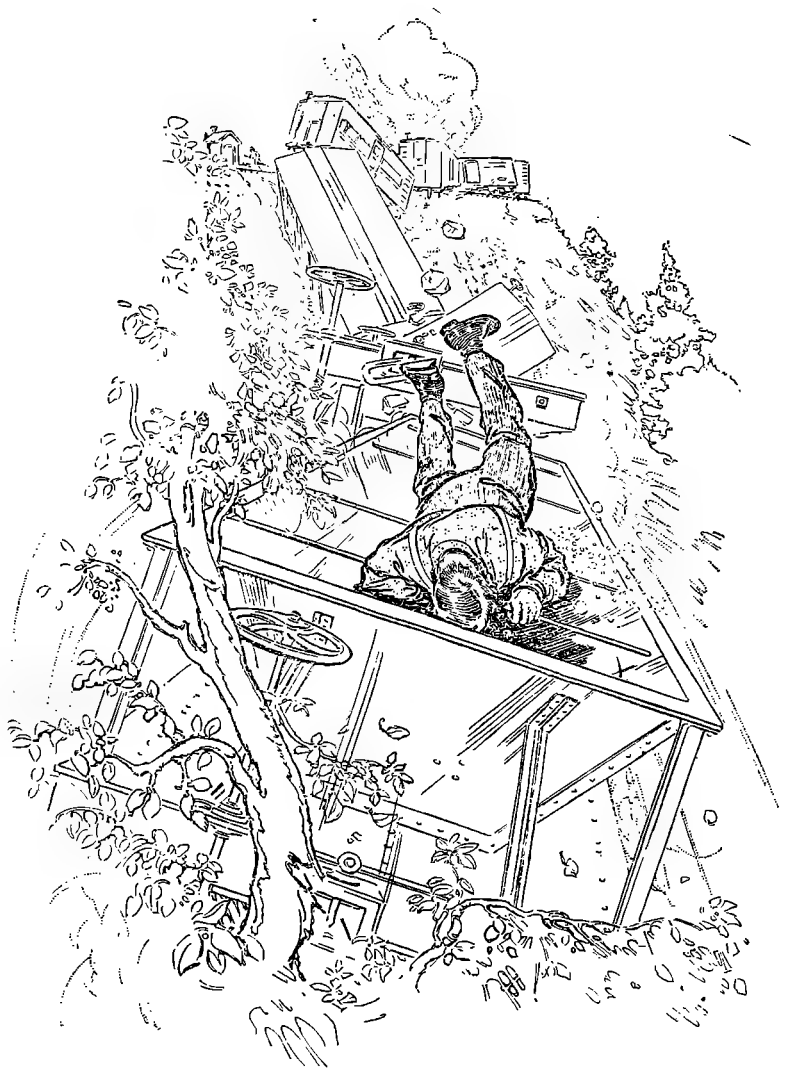
"'I thought you had some there.'

would sell out at a reasonable figure and allow the terminal to be widened.

Instead of driving him out of business, the competition on the corner boomed the neighborhood. The Erie gave in then, but not until the other fellow had thrived so that he was able to rebuild. Recently he has rehabilitated his place once more, but long ago all idea of dealing with him was given up.

The clubroom has been in use a long time now. The wide, old desks are bat-

tered, and the big easy chairs have reached a comfortable old age. Two soft couches are always filled by men who have not had enough sleep the night before, but even Gordon's powerful voice cannot awaken them.



"I DID TRAPEZE ACTS ALL THE WAY DOWN UNTIL WE HIT THE BOTTOM."

When these men were young they had many companions who were killed in the rough railroading they speak of so lightly, and as soon as the serious side to the matter is touched on their faces all become grave.

"I could tell plenty of stories of that kind," one of them said, "but they would be too horrible. When you have seen your best friend ground to pieces before your eyes, you don't recall the circumstance any oftener than you can possibly help.

"There isn't a man in this room who hasn't stood within ten feet of some poor devil as he went under the wheels."

Decker's Wonderful Coolness.

Some of these cases, however, stand out so vividly that they are repeated now and then. One of these relates to "Co"

Decker, a brakeman of the seventies, and it was told by William McPeek, a veteran of forty years, who saw him when he was smashed.

"His coolness was what struck me," said McPeek. "He had placed his fingers over the end of a draw-head to make a coupling, and when the two draw-heads came together, they struck all four of his fingers and mashed them into ribbons.

"He looked at his hand, saw what was the matter, and, without a moment's hesitation, bit his fingers off. It must have hurt him a good deal then and afterward, but he never let on, and took the train in and wouldn't stop for assistance."

Sudden death was no rare occurrence, and it took an extraordinary case to keep the memory of it green; but the fate of Dallas Washer has never been forgotten.

"If there was ever a man who had a presentiment, it was Dallas," said Honnell, who had been a brakeman with him. "He knew something was going to happen, and he talked about it all night, so that we realized his time had probably come when he failed to return from the front end of the train to the caboose.

Gloom Was Prophetic.

"It seemed as if things were bound to go wrong that night. First the pusher tried to climb into the caboose, then the train broke in two, and finally it ran away down the grade to Middletown. It wasn't Dallas's run, and he was at home in Brooklyn, half sick, when they sent word to him to take it. His wife begged him to stay and send back word that he was not fit, but he went anyhow.

"Before we started he told me he was not feeling right about the run that night, and every time something happened, he said: 'I knew there'd be trouble tonight, but there's worse than this coming. I can feel it in my bones. I don't know what it is, but I am afraid it is going to be pretty bad.'

"He kept talking about it so much that I hated to let him go ahead alone, and the last time I saw him I wondered if he might not be right. On a mixed train of coal dumps and freights it was common enough for a man to fall off trying to catch a side ladder, and that must have been what happened to Dallas. In the jump he must have missed his hold and fallen down on the rail. He was a sight after twenty cars had passed over him."

McPeek himself holds the record for holding up cars in a wreck. Eighteen piled one on top of the other, but he is still here to tell the tale.

"It was on the Goshen grade," he began, "and at the moment I was climbing over an empty dump. When we struck, the whole train was shot straight over the embankment, with me in the coal-dump in the lead. I grabbed for the rod, and did trapeze acts all the way down until we hit the bottom, when I found myself underneath, without any way of getting out.

"For a moment I was glad enough, as I could hear the others come down on top, and I thought I counted a hundred. When they took them off there were only eighteen, but in the meanwhile I did a lot of figuring on how long it would take to pick two freight-trains off my back.

"I was eleven hours under that dump, and by and by I could hear Levi Cooper, the wrecking boss, giving orders. Pretty soon he said: 'Turn over that one. Maybe he's under there.' They gave a pry, up came the dump, and I scuttled out like a rabbit.

"'There he goes,' cried Cooper; 'worth a hundred dead men yet.'"

McPeek's Great Marathon.

This was not the only acrobatic performance McPeek ever figured in. One day he was standing on the last car, switching, and gave the signal to shake her up. The order was executed rather more suddenly than he expected, and the car was jerked right out from under his feet. He completed one back flip, and was in the middle of the next when he struck the ground. For a minute he did not know whether he was on the track or not; but, half-stunned, he could hear the cars passing, and knew that he had landed alongside.

But the occasion for which he is noted was when he dumped a train-load of hogs into Passaic draw. There used to be a pretty heavy grade down to the Passaic,

and the old drawbridge was lower than the bridge now in use.

Signals were scarce along the road, but as this was considered a dangerous place a disk had been erected there. It was so near the bridge, however, that it served no purpose when a heavy train was on the grade, and such a train McPeek was braking on.

"Just beyond the signal, and only a few feet short of the bridge," said McPeek, "there was a quince-tree that had grown low and wide on top. In quince season, signal or no signal, we always stopped there and took a few. That is why Harriot, the engineer, remembered it.

"By the time he saw the signal there was no stopping the train from jumping into the open draw, but he waited until he was abreast the quince-bush before he let go. The fireman, having nothing but a steep embankment to light on, landed on his feet, breaking both legs; but Harriot escaped without a scratch.

"I was forward brakeman, and, at the time, I was standing on the first car behind the engine, not knowing anything about the trouble until I saw Harriot jump. It was too late for me to jump then, so I started back over the tops of the cars. I made the second before the first struck the bridge, but as I jumped from the second to the third I could feel it rising under me as it toppled.

"The train was going faster than I was, and by the time I was at the end of the third car I had to jump quick not to go over too. There seemed to be no stopping the train, and it looked as if the whole thing would go in. I was the only one left on it except the hogs, and they were squealing all through the train, making more noise than the falling cars.

Running It Close.

"The fourth car I took on the wing, and the fifth was already well over the edge when I leaped and caught the brake of the sixth. Before I could get a start again to make up for the precious second I had lost regaining my balance, I was running up-hill, but the car, for some reason, hung for just a moment, and I made the seventh.

"By this time I was running right over the end of the draw, and it seemed like one of those races in a nightmare where you run your legs off but can't get away from one spot.

"When the seventh went over the edge I was getting behind in the race, and was about six feet over the water, but the car seemed to be going straight ahead, as if there were track under it, although it was only riding out on another car that was piled up on end, and over she went just as I jumped to the eighth.

"I could see Harriot in his quince-bush, lying there as if he were in a hammock, and I wondered what kind of a place I was going to land in. I made the ninth before the eighth broke away. I had a start then, but I noticed they were still going over behind me. But when I reached the caboose I saw that the train had stopped. The eighth had been the last one over.

"When the cars smashed they broke open, scattering hogs over the whole surface of the Passaic. You can go down to some of those farms now and see the descendants of that train-load of hogs."

King Hates a Blizzard.

Another active old-timer who has a long record behind him is Dudley King. He was braking as early as 1869, and has been a conductor since 1874. He is now in charge of a train between Port Jervis and Jersey City. He is a hale and hearty old man, but he had no use for cold weather, as he was frost-bitten in the famous blizzard in March, 1888. The part he played was heroic, but he does not dwell on it with any satisfaction.

The blizzard came late, following a period of warm weather, and one of the few passengers he took out of New York in the midst of it was a young girl from up the country who had on only spring clothes. Half-way between two towns, away from all help, they were stalled, the heat gave out, and there was nothing to eat except a lunch that King had brought along.

This he divided among the passengers, and settled down to wait until they were dug out. That was nineteen hours later, and meanwhile it was growing colder and colder. King offered the girl his overcoat, but she refused and continued to refuse until she was blue with cold, and then

King asserted his authority and made her put it on. Even then she made him promise he would ask her for it if he had to go out.

"As soon as she laid down in that warm coat," King said, when asked for the story, "she fell fast asleep. I kept moving around trying to keep warm, but the thermometer was getting down pretty low, and I thought I would freeze to death, but I would not have asked for that coat if my fingers had dropped off.

"When they dug us out, the next afternoon, they had to cut off my boots, and I was nearly dead from exposure. The girl slept through it all, but when she woke up she had a frightful cough from having got so cold before she would take the coat. Six months later she died of quick consumption."

That is a story King does not care much to tell, but he feels differently about the time he had W. J. Bryan for a passenger. It was between Presidential campaigns, and Mr. Bryan was lecturing the Chautauqua towns. He boarded the train at a way-station, and King, coming through the train, stopped to collect his ticket. Mr. Bryan fumbled through his pockets, looked in his grip, fumbled some more, and then said, smiling:

"You've got me this time. I have no ticket, and I don't seem to have any money."

Another passenger spoke up then, and said:

"Let me lend you what you need, Mr. Bryan. How far are you going?"

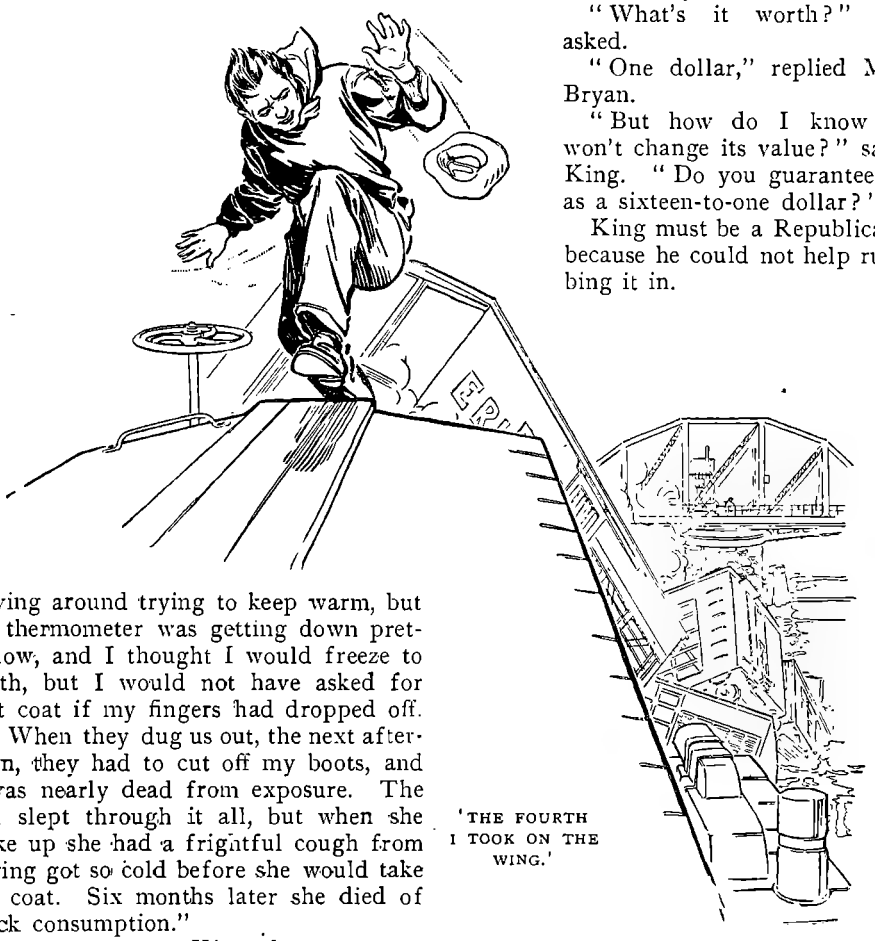
Mr. Bryan told him, and he produced a silver dollar. King took it, looked at Bryan, then at the other passenger, and back to Bryan.

"What's it worth?" he asked.

"One dollar," replied Mr. Bryan.

"But how do I know it won't change its value?" said King. "Do you guarantee it as a sixteen-to-one dollar?"

King must be a Republican, because he could not help rubbing it in.



'THE FOURTH I TOOK ON THE WING.'

"Do you know where you lost your money, Mr. Bryan?" he asked.

"I hid it," Mr. Bryan replied.

"Hid it?" questioned King.

"Yes—where it would be safe."

"Oh, that's so," said King, as if a great light had broken in on him. "I forgot. You were among Democrats, weren't you?"

A good many of the stories they tell bear on the "jimmies." They were a source of severe trial, and were dangerous besides.

"One nice cold November, bright and

early, I was trying to put the brake on one," Gordon said. "The brakes were on the side, and you pushed them down with your foot. Sometimes they went easy, and other times hard. This one was easy, and I jammed her a little, so she missed the catch and flew right up in my stomach.

Goble Gets Facetious.

"Just at that moment we were passing a pond that had new ice on it. When I struck it I was trying to do the cross-country dive, and I didn't know where I was or where I came from. Some one called to me from the top of the train: 'What you doing down there?'

"'Taking a swim, of course,' I answered; 'fine weather for it, don't you think?'"

"A green brakeman fell off a jimmy one time and rolled down the embankment," Honnell related, "and Morris Goble, who was a good brakeman, if he was a wild Indian, called out to him:

"'Hurry and get up, or you'll miss the train.'

"And it's many the kid I've jumped off and whaled," continued Honnell, "thinking they had struck me, but it was only the brake of a jimmy flying up."

Among the veterans is a huge, loosely built man, John Tyrrell, now a conductor, but who, like the rest, went through an apprenticeship. They were telling a story of his prowess.

"He could lift a hogshead of molasses and carry it away," some one was saying. "Isn't that right, John?"

"No mon born of woman ever did thot," he replied. "It weighs fifteen hundred pounds; but I have carried a barrel, and thot weighs seven hundred and fifty pounds. Thot was when I was young and a fool."

Jimmie O'Brien is another Irishman, and one of the few nowadays whom you see smoking a clay pipe. He has not been so long in the service as the others, as he was inherited from the Hackensack when that was taken over by the Erie; but he is regarded as one of the veterans, just the same. He began as a brakeman, and it seemed to him he had to wait a long time before he was made a conductor, and even then he saw others put in ahead of him on the passenger-runs. So he went to the president of the Hackensack and complained.

"And why don't ye give me a passenger?" he asked.

"Well," demurred the president, "you see, it's a matter of nationality. You're not an American."

Jim was deeply hurt at this. "Me not an American!" he said.

"You've not been naturalized, have you?"

"Is it to be naturalized to vote?"

"Yes."

"Well, thin, I'm eligible. I vote, all right. An' to show ye how good an American I am, every election day I vote twice, once on each end of the run."

He got his passenger.

There are two brothers, M. F. and George H. Conklin, who went to work on the Erie as boys in war-time. The former was a train-boy, and made his first money selling fruit to the Confederate prisoners who were being sent north to Mast Hope.

"They were a care-free lot," he says of them, "and hardly seemed like men who were going to prison. I don't know where they got their money from, it was supposed to be so scarce in the South, but they always had some to spend."

A Good Citizen.

Most of these years Conklin has been a baggageman on a train between Jersey City and Suffern, New York, and for a long time his brother George was engineer on the same train. He is the elder, and has been running trains now for forty-four years.

"When I was a train-boy," said M. F., "I saw a man fall off a platform and have his leg cut off under the wheel, and just as he went down a bottle of whisky rolled out of his pocket. That was a lesson in temperance I have never forgotten, and I have never touched a drop."

Many of the old-timers are gone now, and none is more regretted than E. O. Hill, the fighting superintendent, who, as the others put it, "went through the war." He was a severe disciplinarian, and things had to be done. Clay tells a story of a brakeman who was riding a car that was being kicked into a coal

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"Now, then," said the conductor, "let her go."

It was not right, and the brakeman knew it; but he was angry by this time, and let it go. As a result, it ran to the end and dumped over into the street. He was called before Hill and asked to explain.

"He told me to let her go, and I did it," the brakeman explained. "I think it's a darned good man who does what he's told."

"You're right," said Hill, and sent for the conductor.

It is not set down what Hill said to the conductor, and what the conductor afterward said to the brakeman cannot be set down with decorum. Assuredly it did not in any way resemble the hospitable conversation said to have passed between the Governor of South Carolina and the Governor of North Carolina.

MR. BRYAN FUMBLED THROUGH HIS POCKETS.

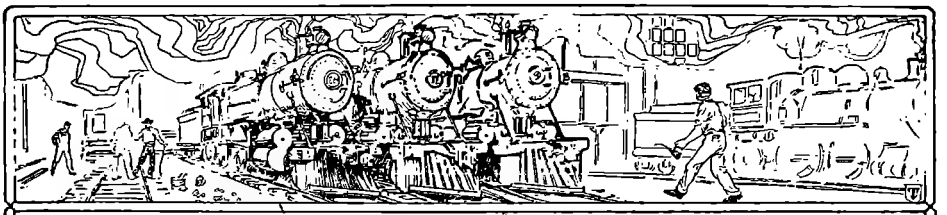
The brakeman grinned and said nothing. It was evident, however, that he was enjoying peace of mind. It was quite enough for him to know that he would be allowed to brake at discretion while he ran on a train with that conductor.

A HAND-KYAR LULLABY.

AN' now me little Pat, Oi'm home
Frum down me section loine,
An' so Oi'll rock ye in the gloam,
While bright the moon does shine.
It's clickety-click, an' whirrity-clack,
This song of the hand-kyar on the track—
So go to slape to this funny chune
Oi'm singin' ye now this noight uv Junne,
Whoile rockin' ye forth an' back—
Click-clack!

Oi'm toired out frum work an' fret,
An' frum the heat uv day;
An' ye are toired, me little pet,
Frum all yer fun an' play.
Now listhen, Oi say, to the clickety-clack
Uv hand-kyar wheels all grase an' black—
An' close yer oies in happy drames,
Thin roide away on broight moon-bames
That's playin' forth an' back—
Click-clack!

Ed. E. Sheasgreen in The Iron Trail.



MODERN STATION RULES..

BY "GEORGE PRIMROSE."

The Following Rules and Regulations Should Be Strictly Adhered To by All Concerned.

THIS station is a public playground and loafing quarters for all who have been ejected from elsewhere.

The waiting-room should never be occupied by trainmen and loafers, if possible for them to crowd into the ticket-office.

The door to the ticket-office is only for looks, and is not intended to keep people from entering the office. If the agent should make a mistake and lock it, the person who feels his presence inside indispensable, should kick it down, if he cannot get in quick enough by waiting for same to be unlocked.

The ticket-office is the reception-room for engineers, conductors, brakemen, firemen, baggagemen, and, in fact, every one that is on the pay-roll. The oftener they come in, and with muddy shoes, the more welcome they are.

When the operator is copying a message, or train order, it is the duty of every one that can read to hover around him and read as fast as he writes, and, if possible, read in advance. If he is taking a private message, read aloud while he copies it, so that any one within a radius of a hundred yards of the depot can hear.

If there are not chairs enough in the office, after the agent and office force give up theirs, sit on the telegraph table, and put your feet on anything that comes handy. Lean over on the desk in the way of some one that is busy, and insist on telling all the old stale yarns we heard when we were boys.

Freight conductors should never check up their trains where there is plenty of room, but should take up the last available space in the ticket-office for their work, and should always be attended by at least two or more of their brakemen.

When entering the ticket-office, always fill your mouth with a piece of tobacco the size of a hen's egg. If the cuspidor is not in sight, spit at the coal-hod, but under no circumstances spit in it. This rule applies to the stove.

If you have any bundles to leave, or any errands to run, don't fail to call on the agent. He is a public servant and is always ready to wait on you.

Engineers, when running for a hill, past station, should always open cylinder-cocks, so as to blow station full of cinders and soil the windows as much as possible. This should be adhered to strictly, regardless of number of trips past station.

Any article around the station that is not nailed down should be carried off.

Any violation of the above rules should be promptly reported to the undersigned.

AN OLD-TIME AGENT.

BILL GETS DOUBLE-HEADED.

BY F. H. RICHARDSON.

It Might Not Have Happened If Sue Hadn't Sent Him Her Photograph.

"WHAT are you looking so glum about?" asked the engineer, when he saw Bill's long face and noted how Bill slammed the shovel and cracked each lump of coal as if he were trying to wipe some mortal enemy off the map.

"Mother of the everlasting smoke-stacks! Can't a feller have a grouch without you buttin' in? S'posin' I am mad! She's carryin' a white feather, ain't she? Even if you are workin' that durn'd injector overtime an' blowin' steam through th' whistle every chance you get! I don't see where you've got any shout comin'!"

"I'm not kicking. I just wondered what could have happened to ruffle the temper of so good-natured a chap as you," and the engineer winked his off eye solemnly at a mile-board as it flew past.

"Well," said the fireman considerably mollified at this tribute, "they's some people in this world that ought t' have their supply of air shut off real quick. They're too durn'd ornery t' do anything but run a dog-pound—an' I'd feel sorry for th' dogs if they was even on that job."

Bill put in a fire, swept off the deck, and after squirting some black oil on the palms of his new gloves and rubbing it in, continued:

"Y' see, I went up t' th' roundhouse, yesterday, t' clean out my seat-box an' do a few other stunts I had laid out for quite a spell. They's a lot of smart Alec tallow-pots, mostly on th' extra list, loafin' round there, an' seein' as they ain't got no particular business of their own, they're mos' generally ready t' tend to everybody else's.

"Well, I was working away 'tendin' strictly to my own business when that little sawed-off runt, Fatty Burns, waddles over an' climbs up in th' cab an' starts chinnin' about what hard luck he's had, an' won't I lend him a couple of plunks till pay-day. It takes me just two-fifths of a second t' put th' skids under him and get it worked through that boiler-plate skull of his that I'm no banker, an' he goes off grumblin' just as Jim Watson oozed himself through th' gangway an' planked his loose-connected frame up on your seat-box.

"You know th' gangle-shanked coal-heaver! He got his first job firin' about three months ago, an' now he puts in all his spare time tellin' th' rest of us things we learned an' forgot before he knew an engine from a stack of hay.

"It seems he had just got wise t' usin' oxalic acid for scourin' brass, an' of course he had t' explain th' whole business t' me. Why, durn his lantern-jawed mug, I knew all that while he was still milkin' th' goats down on grandpa's farm, but, of course, I let him discourse until he run down.

"That's th' only way with his kind. Jus' let 'em run till they run down, an' then make a getaway while they're rewindin'.

"Well, purty soon he told everything he knew and then told a few yards of what he didn't know. Then somebody called him, an' he tore himself away before all th' varnish was wore off th' cab by th' continuous flow of words.

"An' then th' trouble train come in. Th' roundhouse foreman has a big bull-

dog, though what in th' name of everlastin' valve-stems he wants of th' ornery-lookin' freak, is a sight more than I know. It camps in th' roundhouse Sundays, week-days, an' legal holidays.

"He won't be there much longer, for I'm goin' t' bounce a ten-pound lump of cast iron on his measly skull th' first good chance I get."

"What did the dog do to you, Bill?"

"Do to me!" said the fireman, with a snort. "You'd better ask what he didn't do? It won't take so long t' tell.

"I'd got th' seat-box cleaned out an' was standin' in th' gangway admirin' a photograph of Sue she give me th' last time I was over, an' it slipped out of my hand. Th' floor of that engine hotel ain't none too clean, an' not wantin' t' get th' picture dirty, I made a quick dive for it an' lost my equaliber-broom, or whatever th' high-brows call it!"

"Equilibrium, you mean, Bill," commented the engineer.

"Yas, I reckon that's it. Anyway I got from th' engine t' th' floor some more sudden than graceful. Th' picture lit on a nice greasy piece of waste an' my hoof lit on th' picture, an' then th' towerman jerked up th' bad-luck semaphore with a bang.

"Y' see, that fool roundhouse foreman has got a lot of water-pipes runnin' around, an' there's a little pipe with a valve stickin' out from a post beside every stall, for th' wipers t' connect a hose t' wash th' mud off th' drivers an' trucks.

"They're connected with th' city water-mains, an' judgin' by results, they must carry about four hundred an' seventy-eight pounds pressure.

"Well, when I lit on th' floor, I hit one of th' durn'd things an' broke it off. Th' stream hit me square on th' west ear.

"Say, I'll bet I did six pinwheels before I touched th' floor. When I did light it was on top of th' roundhouse foreman who happened t' be pettin' his bulldog!

"I reckon th' mutt thought I was an Italian blackhand tryin' t' work his boss into a trunk mystery.

"I lit on all fours, leakin' water all over, an' that infernal beast, probably thinkin' I needed help, coupled onto me behind. Say, was you ever double-headed by a bulldog?" and Bill paused anxiously for a reply.

"No, I can't say I ever was," replied the engineer.

"Well, all I can say is don't go huntin' for th' experience. Th' dog coupled on an' give th' signal t' start, an' you bet I opened 'er up real quick. It's a mighty searchin' feelin' t' have a full-sized dog industriously tryin' t' bite a pound of meat off your frame!"

"Did it hurt?" asked the manipulator of levers.

His minion looked at him solemnly for a moment, put in a fire, and pulled the bell-rope for a crossing before replying.

"Did it hurt? Well, between the shower-bath an' th' jaws of that dog, I guess I was plum loco. I started runnin' in th' direction I happened t' be headed, with th' pup trailin' along behind an' reachin' fer a bigger bite. Th' foreman jumped up an' took after us, an' you bet they was some commotion.

"I heard one feller that saw th' proceedin's yell, 'Go it, Bill, you're gainin' on him,' which were a lie. How can a feller gain on a dog that is fastened to him with a grip like a Janney coupler.

"Right ahead of me was a window, an' I made a dive for it, not stoppin' t' consider th' fact that there was a sash an' about twenty-nine lights of glass in it.

"I hit th' thing square in th' middle, an' it sounded like a glass factory was bein' blowed up with gunpowder. I'll take my solemn oath it rained glass an' splinters of wood aroun' there for ten minutes. Th' air was so full of th' stuff that some of it had t' wait fer what was below t' get out of th' way before it could fall.

"Just as we went through th' window, th' roundhouse foreman caught up with th' procession an' grabbed th' mutt by th' tail. His grip didn't hold, but I'll bet a two-ton coal-ticket ag'in' a square meal that th' south end of that pup's backbone will be lame for quite a spell.

"I lit outside th' winder with th' sash aroun' my neck an' th' pup atween my legs like I was ridin' him.

"They was a pile of soot jus' outside th' window—oh, they wasn't a thing lackin t' make th' occasion a howlin' success!

"I don't know where th' cussed stuff come from, but it was th' real article like you get out of old stovepipes, an' it was about three feet deep.

"We landed square in th' middle of it. You know how that kind of stuff flies? Well, they was a feller up-town told me last night, he thought a volcano busted out when he saw it. It was no volcano, but just me an' that pup tryin' to scrub that pile of soot off th' map.

"It was no bloomin' failure either. When we got through, that stuff was distributed over half a mile of territory.

"Well, by 'n' by, some wipers an' th' foreman choked th' mutt loose.

"Them galvanized apes o' wipers just looked at me an' laughed like th' whole thing was funny. Some people have crazy ideas of what's amusing. I'll bet I used half of Lake Michigan scrubbin' that soot off me."

"You weren't dirty, were you Bill?" asked the engineer innocently.

"Oh, no! Of course I wasn't. I was clean as a hog that's been makin' hisself comfortable in a puddle of black mud for a couple of hours. All I needed was a little rice-powder on th' end of my nose to be presented t' th' King of England.

"An' what d' you think that measley foreman had th' nerve t' do? Jumped all over me because th' pup got scratched up with th' glass goin' through th' window! I reckon he thought I ought t' 'a' stopped an' wrapped him in cotton battin' before making th' getaway!"

Firing a Work of Brain.

BY E. A. SPEARS.

Why It Is Necessary for the Tallow-Pot of To-Day To Be Much More Than a Mere Coal-Pusher in Order To Hold His Job.

HE was a sandy-haired, muscular young fireman. His jaw was square and his forehead high. He sat on a bench in the roundhouse of the New York Central Lines, and talked about his calling.

"It wasn't many years ago," he said, "that a fireman wasn't supposed to have much more than bulging biceps and layers of muscles across his back. When you asked for a job, they would fire two questions at you: 'Have you got the beef?' and 'Have you got the nerve?'

"That's all they wanted to know, and they considered that enough to make a good fireman.

"But times have changed. Five years ago I began as a fireman on the Delaware, Lackawanna and Western. By that time they were holding examinations. All the boys were expecting promotions, and they were studying up on combustion, steam, brakes, and locomotive practise.

"There were engineers who had been on the road for years, and they knew mighty little about the theory of the locomotive. They just knew that certain things happened when you did certain other things, but they didn't know the why of it. They were just men of the old times.

"And I tell you, us fellows who were studying the theory of the engine would get these old engineers wild asking them questions. An engineer would most always give some sort of an answer. He'd make a stab at it, whether it was right or wrong, for he didn't want to say he didn't know.

"When he was wrong, the fireman would go ahead and tell him where he was twisted, and explain his own engine to him. This often made the engineer

so hot that he would say it wasn't so; he guessed he knew, and no fireman could tell him anything about an engine after he had run one for twenty years. It was heaps of fun.

"The authorities used to look for men of courage and muscle to make firemen, but now they want the men who use their heads. It makes all the difference in the profits of the company whether a man is just muscle, or both muscle and brain.

"Not only do we get our examinations, but the bosses have a way of coming around and casually asking you a question about combustion, about different grades of coal and their effects in the engine, or some other question that don't seem to make much difference. Well, if the fireman can answer the questions, or shows an interest in them, he is more valuable.

"Let me tell you about a trip I had when several students made a test of the engine and our work. These students kept tabs on the steam-pressure, the amount of water in the boiler, the notch at which the engineer had his throttle, and every time I threw in coal, and the amount.

"In short, they kept track of the whole business. At the end of the run they had a graphic representation of the pressure of steam at every minute of the trip. They knew when everything was done, and where it was done.

"Knowing the grades and the stops, they could tell whether or not a lot of coal and steam was desirable at such a place, and whether we had too much or too little.

"I was careful not to shovel in too much coal, and to keep the fire just right, but I learned from those students that I had used in the eighty-mile run just eight hundred pounds more coal than I needed.

"Some people think that an engine is an engine, and let it go at that. They think that they are all alike if they are of the same size. But you may take two engines built on exactly the same designs, built by the same locomotive works, so that they do not vary mechanically a hair's breadth, and when you go to use them you will find them as different in nature as one woman from another.

"You build one kind of a fire in one engine, and she'll pop; and you build the same kind of a fire in another of similar model, and she'll be so dead you can't pull a pay-car.

"I have built a dozen different kinds of fires in an engine before I found the proper one for that particular locomotive.

"One engine will need a high fire in front and a low fire behind, while another engine will require exactly the opposite, and still another will best go with a level fire.

"They can now figure out just how much coal a fireman should use between two given points. They know how many miles a certain quality and quantity of coal will carry.

"To grease your engine they give you so much oil, knowing that it will take you so far. But they can't do that with coal. They give you more than enough, if anything.

"Supposing they would say to you, 'Well, you have a dry rail to-day, and the wind isn't against you. So many tons will carry you.' Then suppose you travel a certain distance, and it begins to rain, and the wheels slip. Every revolution of the drivers means the exhaust of so much steam.

"If you have sixteen or twenty exhausts of steam, which don't carry you ahead, you have got to use more coal to produce more steam to carry you over the rail the distance you should have gone with the sixteen or twenty exhaustions.

"Then, supposing a high wind should swing around against you. Such a wind sometimes makes as much as a third difference in the speed. You must have the coal to overcome it, and that's why it isn't measured out like the oil."

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

The Master Mechanic Makes the Old Man Believe in His Story.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, young and ambitious, having risen from the apprentice shop to mechanical superintendent of the great Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting the sum of twenty thousand dollars for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson meets his price, which is five thousand dollars.

CHAPTER III.

In the Big Man's Confidence.

"DOC" FERGUSON did not lose his head. He remained perfectly cool, and the more he remained cool, the more Harvey Wilson became wrought up.

He slowly calmed himself. He had sufficient self-possession not to let temper get the best of him, especially when debating with an older man.

"You may call it extortion," said the doctor, "but you fellows revel in money, and when you want information from a poor man, you are unwilling to pay for it. I dare say that if you knew the exact whereabouts of Meriel Planquette, it would be worth that sum to you. Come, now?"

"I cannot say—now," replied Wilson, "it probably would."

"You had better take time to think it over. A day or so won't make much difference," went on old Ferguson, "and the longer you think it over the sooner you will agree with me."

"Granted," he continued, "that Meriel is here, in this city—or, let us say, in New York. You must have her. There has been a defalcation or something. Money is missing. A trusted employee is involved in suspicion. A girl, once poor, who saw the man she loved and whom she knew loved her to distraction go to a leper settlement. Suddenly this girl becomes rich and lives in affluence. Her name is connected with that of the employee under suspicion. What could be more natural?"

To his astonished senses, Ferguson had unveiled to Wilson the very plot that the young railroad man was trying to unravel.

How did he come to know this? Was he a necromancer—a mind reader who had let him into the secret? Or, was it only guesswork?

Vincent Wilson was so completely dumfounded that he could not find a ready answer.

Finally, when he had collected his senses, he figured out, mentally, that it would be best to be as diplomatic as possible. He quickly turned the matter aside.

"Pardon me, doctor," he said, "if I have shown that I have a yellow streak in me. I was overcome."

Began in the May Railroad Man's Magazine. Single copies, 10 cents.

"Go and think it over," said the doctor. "You will always find me here whenever you want to talk it over."

He smiled a cynical, knowing smile. He seemed to want to assure Vincent Wilson that he was in the right, and that if Harvey knew on which side his bread was buttered he would do his thinking pretty soon.

Vincent left the doctor's office and strolled back to the company's office.

It seemed ages until half-past three o'clock, when he was to keep his appointment with Harvey Jones.

So eager was he to be on time that he entered the outer office just as the big clock was striking the quarter hour.

Fifteen minutes to wait! It seemed an eternity.

"Is President Jones in?" he asked a clerk.

"Yes. Do you wish to see him?"

Wilson glanced at the clock. Only a few minutes had elapsed since it struck. He was ahead of time, but maybe it would be good policy to be announced right away.

President Jones was a prompt man—prompt in all things, and it might so happen that he would appreciate Wilson being able to keep an appointment ahead of time.

"Tell him Mr. Vincent Wilson," he said to the clerk.

The clerk knocked on the private door of the great man's private office, and entered.

The president was the first to speak.

"That was a tough accusation you made to me to-day," he said. "And you are here ahead of time to report it."

"I came early because the thing is on my mind," answered the younger man. "I don't know if I am right—I may be mistaken—but I have been putting two and two together for some time now and in every case they make four."

"Get down to business, Wilson. I'm a busy man."

"I told you that there is a leak somewhere in this office. Money has been appropriated for improvements that have never been made."

"Is that a direct charge?"

"Yes."

"Do you know the guilty party?"

"I do not. But I'll find him in time."

"On what specific information or evidence do you base your belief?"

"On what has come to my notice. We have been spending more than we should for certain things. I told you this morning that I had been getting figures."

The directness of the young man's words made a deep impression on President Jones.

"Vincent," he said at length. "If I didn't know you, I should say that you were either a fool or a mischief-maker. But I can pretty nearly tell when a man is speaking sincerely."

"It's not for me to put my nose in where it would get pinched," said Wilson.

"Dishonest men creep into big corporations, just as they creep into other concerns," the president went on. "Some of them operate pretty cleverly—so cleverly, indeed, that it is often impossible to find them out, and so they work on unmolested for years.

"It is hard to think that any man in whom you have placed your trust should rob you under your very eyes."

"That's what is going on here," replied the younger man.

"Are you capable of finding out?" asked Jones.

"I think I am. I only need time, and not a very long time at that."

"Do you need the aid of a detective?"

"Not now. What I need now is money."

"How much?" asked the president without hesitation.

"I cannot say yet. There is a woman who must be found."

"Always the woman," mused the older man.

"Yes," replied the younger; "if I can locate her I will locate my man."

"Do you know anything about her?"

"I understand that her name is Meriel Planquette. She is living in great style either in this city or in New York. My theory is this: She is blackmailing this man—this particular man who is an officer in your company. She used to be a poor girl in this town. She is very pretty, and was once in love with a fellow they called Kaintuck.

"He had to be sent to the leper settlement at Molokai, in Honolulu. She was supposed to follow him there, but when

looking around for the necessary money to get transportation, she fell in with this official."

"And what became of Kain—what did you call him?"

"Kaintuck," said Vincent Wilson. "Why, she merely shook him—as they say. Money turned her head."

President Jones was getting interested. The young man's story certainly had the earmarks of plausibility. But it was the unflinchingly plain and blunt manner in which he told it that made his superior officer place absolute confidence in him.

Harvey Jones paced up and down his office. He looked out of the window, he returned to his desk, looked at Wilson, and walked back again to the window, where he beat on the pane with his fingers.

Could it be possible that one of the men in his great organization—an organization of which he was so proud, and which he had taken so much trouble to build up—should be robbing him?

It was a blow even to think of it. Great Scott! Here in his own company! He was almost ready to rush into the outer office and ask the man to step forth, so sudden was the touch of anger that rushed into his brain.

Harvey Jones seldom lost control of himself. He seldom said or did things for which he was sorry. The diplomatist is born. All the schooling in the world will not make him—but schooling will perfect him. Jones was not going to spoil any part of Wilson's chance to trap the culprit—and he was convinced now that there was something wrong somewhere.

He turned to Wilson, who had sat watching him closely.

"Wilson," he said, "I want to ask you one question."

"I'll answer it if I can, Mr. Jones."

"Tell me, have you any idea who this man is? Have you any suspicion?"

"Not the slightest."

"But you are sure of this girl—what did you say her name is?"

"Meriel Planquette."

President Jones made a note of the name on a pad on his desk.

"Can you locate her?"

"I think I can. There is an old man in the neighborhood — an old doctor — who knows her whereabouts, I am sure, but he will not divulge unless he is well paid."

"Have you seen him?"

Vincent Wilson related his visit to "Doc" Ferguson in every detail.

"I listened to his yarn," he said, in closing the incident, "and then asked his price to tell me Meriel Planquette's whereabouts. He demanded five thousand dollars."

"Preposterous!" shouted the president.

"I told him so," answered Wilson, "and I meant it."

"Do you think that he is in league with her?"

"No! My impression is this: he evidently saw that I was badly in need of the information, and he saw a chance to make money. I think that if he is offered five hundred dollars cash he will not hesitate to tell all he knows about her."

"Try him," said President Jones. "We must do what we can to get to the bottom of this."

CHAPTER IV.

The Market Price.

TURNING again to his desk, the president of the Mainland System touched a button. In an instant a tall, slender youth entered.

"Tell Mr. Lowery I want to see him."

The youth nodded and left the room, and it was only a moment before Mr. Lowery, one of the assistant cashiers, entered.

"Bring me five hundred dollars in hundred-dollar bills," said President Jones, "and have it charged to my account."

Lowery departed to carry out the order.

"You have never told me, Harvey, where you got your information that led to this—this charge of yours. I can only call it a charge, just now, for it is aimed against some one in the company."

"It dawned upon me when I was checking up one of my bills for equipment for our Norfolk division."

"In what way? How?"

"It simply struck me that the price charged for certain items was a great deal more than the regular market price. That

was one instance. Again, I noticed one account that called for a great deal more of a particular item than we needed.

"My suspicions were aroused. I looked deeper into the matter. I am convinced that I am not mistaken. If you want further details you may have them at any time—now, if you say so."

"Not now," replied the president. "My time is occupied for the rest of the afternoon. Later, we will talk it over at length."

He handed Vincent Wilson the money. The young man tucked it away in his wallet, then started to go.

President Jones took his hand and pressed it warmly.

"You have my best wishes, my boy. If you prove your case, I am your best friend—and there's a future here for you that will mean something."

CHAPTER V.

The Deal in Denver.

IT was evening in a richly furnished apartment on one of those highways in New York City where those who have money live in all the splendor of metropolitan luxury.

Meriel Planquette sat before her mirror and pinned a red rose in her dark hair. It reposed against the black coiffure tenderly and becomingly. Her face was illumined with a smile of satisfaction. She reveled in the undisputed evidence of her own beauty.

"He told me I looked like Cleopatra," she said to herself. "Cleopatra was beautiful—so beautiful—so ingeniously beautiful. He told me, also, that I looked like Juno. But I don't like Juno's face—so fluffy! And her hair—not even respectable. That made me think that he wanted to flatter me. If he had only been content with Cleopatra."

Meriel floated into a reverie wherein a number of men danced gayly before her, but wherein one man — John Toylmore —never entered. To her, John Toylmore had been every inch a bore—but he had money when she married him.

Her married life had been short. John Toylmore was a well-to-do railroad man when she met him—the New York representative of the Mainland System. She considered it a good match, for he had a position that brought a salary that gave her social position.

It was Toylmore who had won her from Kaintuck—who had proposed when he had fully blinded her eyes to her former sweetheart in the leper settlement, and had married her, giving her luxury and position.

But their married life was destined to be for less than a year. Toylmore was killed while touring in his own automobile.

His beautiful widow mourned but very little. Soon after he was laid away, she began to look at life through pleasant glasses.

She was not going to spoil her pretty face with weeping! She was not going to become a victim to moods of mourning! No, not she.

When Toylmore took her away from Kaintuck, hadn't he destroyed forever all her sense of sentiment? Hadn't he shown her that money was more than love? What was there to be gained by living in poverty and gloom when one could live in riches and sunshine?

These were the questions she asked herself, and to each of which she answered, "What!"

Pretty and rich and a widow, men would soon be paying her attention—and they did.

They told her she was wonderful—beautiful. They extolled her charms and her manner.

But she felt that their words were false. What they wanted was her money—not herself.

All save one. Jimmie Winters had made love in the maddened pathos of real earnestness. But he is so young, thought Mrs. Toylmore. He can hardly be a man, and yet he boasted of his twenty-two summers as one who has defeated death in old age boasts of longevity. His was a persistent wooing, too. Impassioned, fiery, almost desperate, and full of meaning. Had it been the wooing of any other man it would have wearied her, but there was an inexpressible charm to Jimmie Winters.

It was so unlike Bertrand Clivers—the short, stout, blustering broker, to whom sentiment, too, was as the Dead Sea

fruit, whose prosaic nature never rose beyond a cold, "Good evening, Meriel," when he arrived, and a colder, "Good night, Meriel," when he went away.

And to Clivers, Meriel was no more than the victim's clothes to a brigand. It was her gold that he wanted. It was the fortune that Toylmore had left—the same fortune that he had once tried to deftly lure from the dead railroad man by a "little deal in Denver."

Clivers went home one night after having asked the pretty widow, for the eighth time, if she would be his wife. With her customary coyness, she had answered "No."

As he tumbled into bed that night, he felt that he could almost commit murder for her money. The widow's fortune would come in so handy. With it, he could buy in with Brockley, the broker, in the oil deal — and Wall Street would call him a Napoleon.

Meriel brushed into the spacious drawing-room and threw herself into a big blue armchair in front of the tempting fire. She loved that room with its Indian tapestries, its massive furniture, and its deep red walls.

It was Jimmie's night to call.

She settled in the chair and opened her book. She had hardly read ten lines when the door-bell announced that Jimmie had arrived. The stiff butler's, "Mr. Winters, ma'am," brought Meriel to her feet, and she greeted the young man with all the fulsomeness of her heart. Jimmie advanced, enraptured, and took the hand held out to him.

"Shall I call you Cleopatra to-night," he said, "or shall I christen you the Medea?"

"No, Jimmie, I like Cleopatra best. She was a reality, and the Medea was only one of those sun-myths. Cleopatra—she had all the men at her feet, and my friends do say—that I am a Cleopatra."

"I like you to-night," Jimmie continued, still smiling, "you wear colors well for a woman with a dark complexion."

The light and airy chatter that always prefaces the serious phases of conversation took its course, and Jimmie soon found himself beside the big armchair.

Gently he placed his hand on the soft hair of the woman, just as if he had expected resistance—but she offered none. He knew she would not, and his arm stole around her shoulders and slipped down to her waist. He sat on the arm of her chair and whispered, "You know I love you."

She brushed her cheek against his, and kissed him softly. To her it was like a mother kissing her son. Though only three years his senior, she sometimes felt for him a maternal love, or else she imagined she did. Then, at other times she believed he had trained himself to be a man for her sake, and that he was a man.

To-night, he seemed to be more of a man than ever.

"You have a future, that you must not forget," he was saying. "Meriel, you have a life that you must not throw away—you must think of those days that are to come, when your raven hair will have turned to gray. You will long then for a strong arm and a kind heart, and if those have nurtured you through your young life, they will make your old age happy."

"But I will have my money," persisted Meriel.

"Money!" replied Jimmie, as he marveled how a woman could think of anything so mercenary in the midst of his passionate appeal. "Why, money is spasmodic. Some man will marry you for your money, and when it goes he will desert you. But as far as I am concerned, Meriel, you can give it away. Cast it to the winds, and let me be your slave."

"No, Jimmie, I would never do that."

"Then do not bring it into my affairs. It is yours. Keep it. But tell me? Is my love anything to you?"

Hesitatingly, Meriel answered "Yes."

"Meriel, I love you for yourself alone, I will always love you and be true to you. My life will be devoted to making you happy. Will you marry me and end this agony of suspense? Will you, dear?"

He was kneeling before her, so that his arms were around her and her face close to his. He looked her squarely in the eyes. Color came to her cheeks, her lips quivered, as she answered:

"Yes."

In the moment of intensity that followed neither heard the bell ring, and

neither heard the stiff butler as he opened the door, nor saw the robust form of Bertrand Clivers as he entered, unannounced.

Meriel was crying softly with her head on her lover's shoulder—crying because, perhaps, she could see a new and a good life.

Jimmie was swearing faithfulness by all the gods in the gamut of mythology, while covering his sweetheart's face with caresses.

Both started in a paroxysm of terror at the sound of the broker's voice. They arose and faced him, and Jimmie's clenched fist gave emphasis to his rage, while Meriel was too surprised to speak.

Clivers was keen enough to see that deceit and craftiness should be his only weapons. It was to be war between youth and age, sentiment and commercialism, and he was willing to wager that he would win.

"I have disturbed you, Meriel, I fear. Your nephew, I presume."

He had heard of Jimmie Winters, but he wanted to aim a shaft that would pierce when it struck, and few women are capable of withstanding the blow of being called the aunt of a lover, and especially when found in his arms.

"You entered unannounced," said Meriel.

"You are not a gentleman," added Jimmie, hot with the fire of youthful bravado, which is always intensified at such a moment. He was willing to assault the broker on the spot, but Meriel, with a gentle, "be careful, Jimmie," prevented the catastrophe.

Clivers merely smiled. He was too much of a man of the world to be upset by a mere stripling of a boy, even if the woman whose money he wished to marry was in love with that boy, and the chances appeared to be in his favor.

Clivers grasped the whole affair at once. He needed no one to tell him that Jimmie had proposed to Meriel, and that Meriel had accepted him. Nor did he need a verescope to picture the future of the woman, and Jimmie's untiring efforts to make her a happy wife.

He must frustrate Jimmie's plans at once.

"It was necessary for me to call to-night, Meriel," he said with suavity. "There is a little deal on. I thought you would like to hear of it. The Central Western has another boom. Stocks up! Everything gay. Nothing to worry me. Life's a dream—"

He brushed by the dumfounded Jimmie and sat in the blue armchair.

"Made a million in Central to-day. A cool million! I must go away for a few days, and just came to say good-by. But introduce your friend. I like to know young men. Pleased, I'm sure, Mr. Winters. May give you a tip in the Street some day; and if I do, take it—take it."

Jimmie nodded a cold response at the introduction. All the wealth of Wall Street could not lure him from Meriel, and to have his best purpose thwarted just at its most critical moment was something that he could not endure.

"Mr. Clivers," he said curtly, "your presence is undesirable. I may say that you have interrupted a most private conversation in a manner that reflects on your position as a gentleman. I beg you to excuse yourself."

"I must see Mrs.—er—er—Toylmore. I have something important to tell her," said Clivers.

"Then tell her. And make it as brief as possible."

"But it is private."

"It cannot be too private for me to hear. Mrs. Toylmore has agreed to marry me."

Clivers never flinched. It was just what he had expected.

"Dear me, dear me," he said with a sardonic smile. "Here's a chance for congratulations. Meriel, I'm sure you know how much I wish you happiness."

The situation became unpleasant. Meriel and Jimmie wanted to be alone, but Clivers did not; so he stayed under one pretense or another until Jimmie felt that he could have devoured him as a cat devours a mouse—and with just as little mercy.

The boy was in the throes of anger, but the coolness of the elder man kept him from giving vent to it. It had always been Jimmie's custom never to let any one get the better of him in politeness.

When the time came to go he did not linger with Meriel, but walked out into

the street with the broker; and when the first car came along, though it carried him in the wrong direction, he boarded it after a sharp "Good night!"

The next morning he was at the home of Meriel early enough to partake of her late breakfast. In his vociferous endeavors to tell her how true he meant to be, how trustworthy and faithful, he let slip sufficient in the presence of the butler to give that flunky an excuse to tell the rest of the servants.

When breakfast was over he sat with his bride-to-be in a corner of her drawing-room, and there he swore again and again the eternal, undying, unflinching love of an honest man.

Meriel believed him—she had no reason to doubt his sincerity. She promised to be his and to marry him just as soon as the dressmakers could fit her out.

Jimmie, in a whirlpool of delight, said a fond "*Au revoir!*" and flitted away to Boston to break the news to his mother.

The night Jimmie left, Clivers called to see Mrs. Toylmore. What could the man want, she thought; what was his motive for being so persistent? She had to see him, she supposed. She could not turn away so old a friend.

"You look well to-night," she remarked as she beheld him, for he had gone to the extreme of dress for this special occasion. He knew he looked well, and as he drew up before the fire he remarked: "Yes, everything is lovely. The little deal in Denver, you know."

"Ah, that yet!" said Meriel. "How has it panned out?"

"Just two millions, cool and clean. Bought a home on the avenue, and cornered wheat to-day. Will make the oil-boys look like drowned rats to-morrow. They will call me Napoleon yet."

Meriel smiled faintly. A tiny demon within her whispered that it might have been all hers; and then a big demon, who was sitting near her, told her the same thing—but it was all false, and so fatal.

Could the woman have seen the true "deal in Denver," she would have beheld only a heap of papers, signed and sealed and written in high-sounding phrases that are undiscernible but awe-inspiring to the victim. The world is full of such papers, and the victims are born every minute.

The door-bell rang. The noise it made was louder and sharper than usual. It pierced the woman's heart and made her start.

"A telegram, madam," said the butler.

A telegram from Jimmie. It read:

> Mother is ill. Must remain here at least three days longer than I intended. She gives her consent. I know you're happy.

When Jimmie had started for home his heart outran the fleeting train in its eager desire to greet its new-found mate. His hopes were made new and glorious at the thought of seeing Meriel again—and preparing for their wedding.

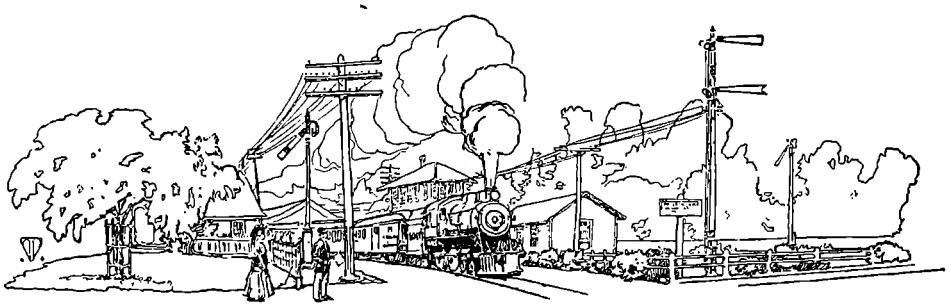
He hailed the first cab after leaving the train, and gave a command to be executed without delay. Thrusting a five-dollar bill in the driver's hand, he almost bounded up the stone steps of the Toylmore mansion and pressed the electric button.

"Is Mrs. Toylmore in?" he inquired with a touch of expectant joy.

The stiff butler, with the dignity due his position, dryly answered:

"Mrs.—er—er—Clivers and her husband left for Europe day before yesterday. She instructed me to say that they will not return until the winter season."

(To be continued.)



OLD-TIMER TALES—No. 5.

The First Locomotive Race.

BY C. F. CARTER.

WHAT would you think of a locomotive race, similar to the event described in Mr. Carter's article, taking place to-day? Wouldn't it be looked upon as a silly proposition—bunching a lot of locomotives against one another like so many race-horses? And yet—sixty years ago—it was something of a rare sport. This Old-Timer tale shows better than facts and figures the wonderful development in the steam-locomotive since the day when it was entered in a racing event to amuse the public.

The "Addison Gilmore" Looked Like a Sure Winner but She Was Disqualified for Carrying Steam Pressure Above the Prescribed Limit—120 Pounds.

WHEN the Middlesex Mechanic Association was racking its collective brain for a star attraction that would insure a good attendance at its "Exhibition of Improvements in the Mechanic Arts and Manufactured Articles," which was to open in Lowell, Massachusetts, September 6, 1851, some genius whose name has not been preserved proposed a locomotive race.

As it was only twenty years since Phineas Davis had built the "York," which won the prize of four thousand dollars offered by the Baltimore and Ohio Railroad for the best locomotive, the railroad was still a good deal of a novelty in which popular interest was lively.

People were still writing letters to the newspapers describing the delights of railroad travel and arguing that it was the best method ever invented for getting over the ground. Its possibilities were beginning to be understood, and the railroad craze was then at its height. Under these circumstances, the suggestion of a locomotive race was hailed as an inspiration.

All the railroads, as well as all the locomotive manufacturers, which included almost every machine-shop in the country, were invited to send locomotives to take part in the race and also to exhibit railroad appliances.

The New England Association of Railroad Superintendents, the first railroad organization, was invited to take charge of the race. The invitation was accepted, and Waldo Higginson, L. Tilton, and William P. Parrott were appointed judges.

But Still a "Race."

The first thing the committee did was to call the "race" a "test," which was less calculated to make the strong popular appeal desired than the "race" hit upon by the Middlesex Mechanic Association. Fortunately the newspapers and the public could not be deceived by any

high-sounding scientific talk. They knew a race when they saw it, no matter what it was called; and as a race the affair continued to be described in print.

Certainly the conditions read as if governing a race, and the prizes were for speed alone. Passenger-locomotives were required to show their speed with a steam pressure between 80 and 120 pounds, hauling a train furnished by the agent of the Boston and Maine which consisted of six covered freight-cars, each containing a load of five tons, and one long passenger-car containing twenty-one men.

The train, which was assumed to be equivalent to six loaded passenger-cars, weighed 85 tons; it was 225 feet long, 10 feet high above the rail, and 8 feet wide, thus displacing 17,680 cubic feet of air.

The engines were to start at a given signal from the fifteenth mile-post, numbering from Boston, on the Boston and Lowell Railroad, and run to the twenty-fourth mile-post. The engine that covered the nine miles in the shortest time was to get a gold medal. The second prize was a silver medal.

The freight-engines were to be tried like draft-horses for their power to haul heavy loads, yet they were to race the same as the passenger-engines—those covering the distance in the shortest time to get a gold medal.

The Course for Freights.

There were no dynamometers nor anything else to test the draw-bar pull. Indeed, no one knew anything about draw-bar pull. The train was to consist of 114 loaded freight-cars; but as the total weight of the train was only 650 tons, they could not have been very large cars.

The course for the freight-engines was a branch 9,100 feet long, connecting the Boston and Lowell with the Boston and Maine at Wilmington, Massachusetts. At the signal, each engine was to back its train up an "inclined plane" with the terrific grade of fourteen feet to the mile. On reaching the top of the hill the engineer was to reverse and make the best time he could to the other end of the course.

Ten locomotives were entered. At length the great days arrived—Wednesday and Thursday, October 1 and 2, 1851. A great crowd assembled at the fifteenth mile-post, for the passenger race was to take place first.

Disgusted and Disqualified.

The first to start was the "Addison Gilmore," just from the shops of the Amoskeag Manufacturing Company. The October sun was reflected from fresh varnish, glittering steel, and polished brass until it dazzled beholders. The contrast between the "Addison Gilmore" and the other engines which had been taken from their regular work on the road, predisposed the crowd toward it, and it was a strong favorite in the betting.

There was a wild cheer as the "Addison Gilmore," with steam roaring from its safety-valve, darted away at the signal and soon disappeared in a cloud of smoke and dust. In a little more than half an hour the prize beauty of the locomotive contest came puffing back, with a disgusted-looking engineer lolling disconsolately out of the cab-window.

The "Gilmore" had been disqualified for carrying steam pressure above the prescribed limit. Her time for the 9 miles was 14 minutes 25 seconds, which the crowd considered pretty fast.

"The Essex," an inside connected engine belonging to the Boston and Lowell, with cylinders 15 x 20 inches and a single pair of drivers six feet in diameter, was the next to couple on to the racing-train. The distance was covered in 14 minutes 33 seconds.

This increased the popular wrath against the engineer of the "Addison Gilmore," whose bungling had disqualified his swift racer.

The Heaviest Entry.

But the next contestant, the "Nathan Hale," belonging to the Boston and Worcester, also inside connected, with two pairs of drivers five and a half feet in diameter, took the popular breath away by getting over the course in the remarkably fast time of 12 minutes 30 seconds—almost two minutes less than the "Gilmore's" time.

There was another "Addison Gil-

more" entered, owned by the Western Railroad, built a few months before by Hinckley & Drury. This engine was something of a novelty. It had outside connections, while eight out of the ten entered in the race had inside connections. It had cylinders 15⅜ x 26 inches, and a single pair of drivers 6 feet 9 inches in diameter. It was the heaviest engine entered, weighing 50,885 pounds, less than one-eighth of the weight of one of the Mallet engines now in use on the Erie.

This "Addison Gilmore" established its claim to the gold medal and drew favorable attention to outside connections by covering the nine miles in 11 minutes 29 seconds. The silver medal was awarded to the "Nathan Hale."

The race for freight-engines was won by the "Milo," also built by Hinckley & Drury, and owned by the Boston and Lowell, a monster with cylinders 13½ x 20 inches, three pairs of drivers four feet in diameter, and a total weight in working trim of 19½ tons. Time for the 9,100 feet, 10 minutes 24 seconds.

The silver medal for freight-engines was won by the St. Clair, owned by the Ogdensburg Railroad, in 10 minutes 54 seconds. The "St. Clair" was inside connected, with cylinders 15 x 20 inches, two pairs of drivers 4 feet 6 inches in diameter, and weighed 48,650 pounds.

The locomotive race was a great success as a popular attraction and it also pleased the railroad men. The committee apologized for not being able to find out more about locomotives, but excused itself on the ground that it had no precedents to guide it, as nothing of the kind had ever been attempted except the Rainhill trials in England twenty years before.

JUST BENT A LITTLE.

A Few of the Things That Happened to a Couple of Affectionate Locomotives.

THE 425 and the 325, Chicago and Alton engineers, came in from Venice lately, where they had been the principal performers in a head-on collision. They presented a sadly demoralized condition, and will be expensive to repair. The front ends were stove in and wrecked back to the boilers, the pilots smashed away, and the frames doubled up like paper. The cylinder castings were also so badly broken that entire new ones will have to be supplied; the cabs were smashed away, the front trucks missing, the jackets torn away, and the inside mechanism on the boiler-head so battered and smashed that it will all have to be replaced. The locomotives were bunged up worse than has occurred in any accident on the Alton for many years.—*Exchange.*

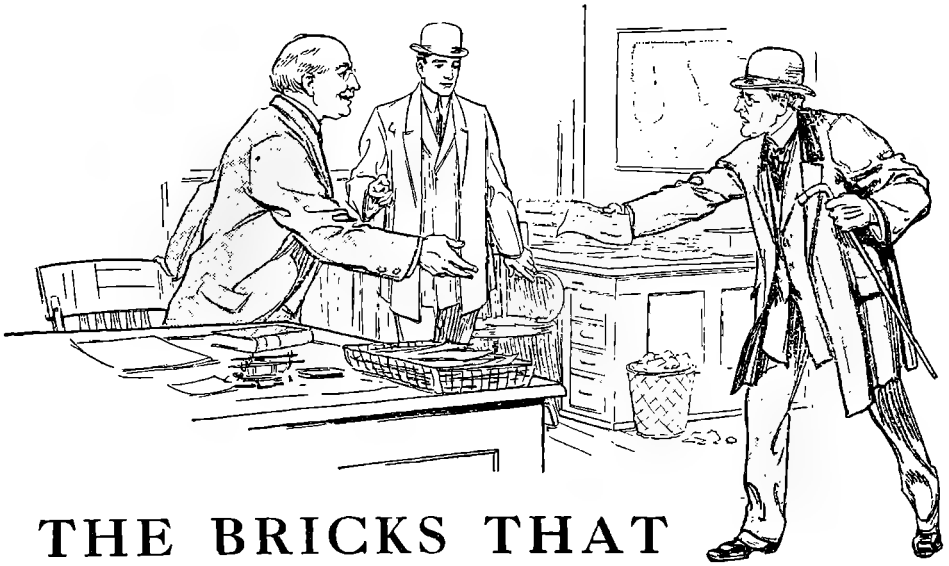
RAILROAD SCHOOL OF MANNERS.

LESSONS in deportment and etiquette are the latest innovation on the Union Pacific. The education bureau of the company, which is under the management of D. C. Buell, has undertaken to educate the employees as to how they should best conduct themselves when coming in contact with the public.

Nearly one thousand employees of the railroad are now enrolled in the school, and many additional applications are being received daily.

What the crabbed employee is likely to do to a railroad is set forth vividly. He is said to give the public a bad impression of the railroad, which results in unpopularity, which, in turn, may lead to adverse legislation. The value of reading human nature and of being a "mixer" is said to be almost inestimable.

Oil is good on the bearings, but bad on the rails. Be smooth, but don't be slippery.—Carpet Communings.



THE BRICKS THAT WENT C.O.D.

BY IRWIN THOMAS.

Three Trunks Were Shipped to San Francisco—They Were Heavy, and Nobody Claimed Them.

"RANSOME, sit down!" said the superintendent of the Western Express Company, when a tall, lank, shrewd-eyed, sinewy-looking man came into his office in response to a request that the superintendent wished to see the chief of detectives.

"What's the trouble now, Mr. Bailey?" asked Ransome, as he slid into a chair.

"This is one I have had passed to me from the Pacific Division," said the superintendent. "They say it is up to the New York office, and maybe it is. For six months, Ransome, this company has been robbed of thousands of dollars—not stolen in money, but in labor and charges.

"I'll tell it to you briefly, then you can take this correspondence and look it over. I want you to work on it personally, because it must be stopped.

"Last July, some one shipped three trunks, C. O. D., to San Francisco. They were wonders. They were tied with rope and reenforced with slats—and they stood the trip. They weighed two hundred and forty pounds, or more, each. They never were claimed. That was the beginning. Since then, in boxes and barrels and in wrapping-paper, this fellow has been shipping bricks, old iron, and anything that will weigh, to some fictitious person in San Francisco.

"He has shipped from Boston, New York, Philadelphia; and one shipment, two hundred pounds of what was part of an old anchor, came from Halifax.

"This stuff has been going over every day or every week. There are probably half a dozen shipments between here and the coast now. There's a storehouse full of junk out there. We were some months getting on to it, and did not realize what we were up against until we were getting

ready for a sale of unclaimed express. The trunks were the first opened; they were filled with old bricks.

"I think the fellow is a lunatic. But we must land him, because we are getting so that any time a man offers a particularly heavy bit of merchandise, we feel like we are being done. What do you think?"

"Maybe it's the work of a bug, but it looks to me like a grouch," replied Ransome. "Maybe some fellow who has been fired and who was working on the run out West, and just likes to think of the man who has his job wrestling with a ton of junk. Or, maybe he is getting even with the company."

"Well, get at it, Ransome. Get busy, and see what you can do, and let me know what you find out. I'll give you anything else that turns up on it," and the superintendent turned over to the detective a mass of correspondence, including the way-bills for the junk that was piling up in the San Francisco office and storage-house.

The way-bills showed the shipments. They had come from hotels, had been carried into branch offices by expressmen, and expressed at New York. In Philadelphia, the stuff had all been carried to the offices. There were no descriptions of the man, because, in the time that had elapsed, clerks could not remember him.

"He's been a busy man," commented the detective as he ran over the shipments, more than forty in all. Then he made a note of the date of the shipments in New York, and those in Philadelphia and Boston, and the one from Halifax.

"That's a pyramid," said Ransome. "He started this in New York, went to Philadelphia, came back to New York, went to Boston, then to Halifax. He was gone two weeks, and came back to Boston, made three shipments from there, and returned to New York.

"The man I want was in New York on these dates, in Philadelphia on these, in Boston on these, and in Halifax when this shipment was made. It looks like Halifax as a starter."

Four days later, Ransome was in Halifax.

The hotel registers of the city were copied for the week. From the express-agent it was learned that the package consigned to San Francisco had been delivered by some one in a cab. That was about all he remembered.

The records of the Boston hotels were obtained for the week before and the week after the episode. For two days Ransome sat with an assistant in Boston and checked off the names. Through this system of comparison the names of twenty-five persons who had been in Halifax for a week, and who had been in Boston a week before and a week after, were found by the detective.

During the work of eliminating this, that, or the other from the list, Ransome was interrupted by a telegram, which called him to New York to see Mr. Bailey.

"Your friend has been working out West," said Bailey, when Ransome came into the home office. "We have uncovered a box of sand, a trunk filled with old bricks from the fire in San Francisco, and a barrel of empty tin cans and scrap-iron. All told, they weigh about five hundred pounds, and are in the unclaimed package-room here in New York. There is probably a ton of this stuff on the road now."

"It looks to me like one of these was the person," said Ransome, displaying his list, and explaining how he obtained it.

"That's intelligent work, if it isn't anything else," replied the superintendent. "But can't you get more men to help you?"

"I'm going to take three men to Philadelphia to-day, and by to-morrow will have a closer line on this thing than we have now. This is something that cannot be done in a minute."

"I know; but it has got to be cleared up. I have sent out a circular, asking agents to note particularly any one expressing more than one hundred pounds to San Francisco, unless the person is a well-known shipper. That may bring results."

The offices of the superintendent were in the rear of the general receiving department of the main office. The conversation of Ransome and Bailey was interrupted by the appearance of Fogarty, a receiving clerk.

"Mr. Bailey," said Fogarty, "I didn't

want to come in unannounced, but there's a man outside that comes under the head of that circular sent out to-day. He's shipping two boxes to a man at a hotel in San Francisco. They weigh over one hundred pounds each. They're almost as heavy as lead.

"He's expressing them C. O. D., and when I asked him what was in them, he said it was none of my business—that the value was nominal. You can see him through the glass door. I made an excuse to get away, and thought I'd tell you."

At the counter stood a fussy-looking little old man, who, when Fogarty came out, was fuming at the delay.

"Here! I want my express receipts for these boxes. My time's limited! I got none to waste on a lot of understrappers around here," he said.

"But you ought to say whether that is merchandise or not," said Fogarty, playing for time, while Ransome went around the office and obtained a good look at the man.

"You just back up, young fellow," replied the other. "It doesn't make any difference whether one box contains sewer-pipe or bricks and the other contains green cheese. I'm shipping them, and you are a common carrier. You've got to take them. I demand it of you!"

"On these heavy shipments to the coast we generally like to know who is sending them. Sometimes the man to whom they are consigned doesn't want to receive them," said the clerk politely.

"From my knowledge of an express company, the consignee has time to grow old and die before the stuff arrives there. Now, if you are so absolutely inquisitive about the contents of those boxes, one contains bricks—B-R-I-C-K-S — bricks, and the other contains bricks—B-R-I-C-K-S—bricks! And there's my card."

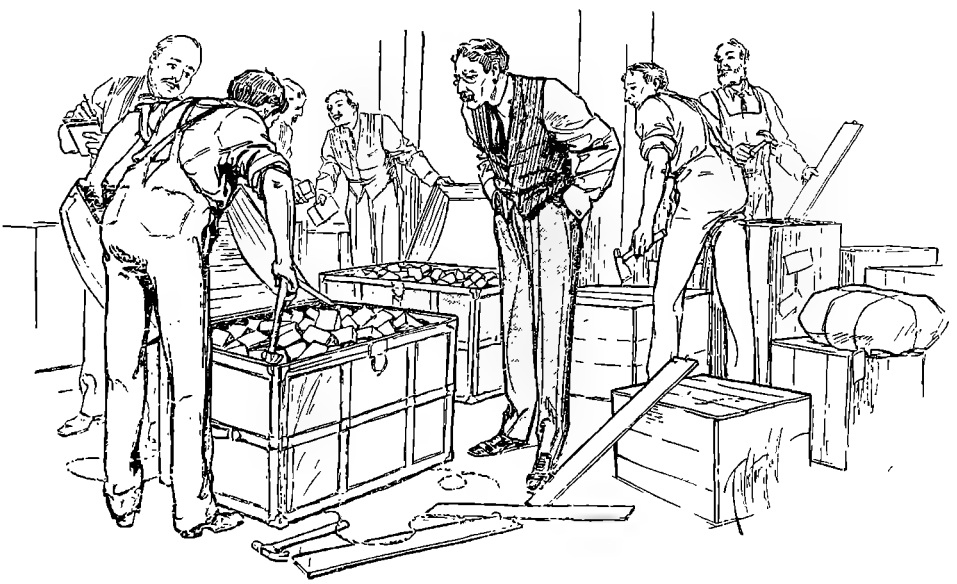
The old man fairly shrieked it. Ransome heard him, and so did Bailey.

"Excuse me, but what is the trouble?" inquired Ransome, coming forward.

"No trouble. I am trying to ship some stuff here—trying to let this monopoly make a few dollars—and this person here, who hasn't the intelligence of a second man at a bootblack-stand, wants to know my business, wants to make my business his-business. My name is George Washington Wallingford. I'm a—"

"Were you in Boston and Halifax last summer, and did you register as G. W. Wallingford?" asked Ransome quickly, with the knowledge of that name on his suspect-list.

"I certainly was there, and I didn't



"MAYBE IT'S THE WORK OF A BUG, BUT IT LOOKS TO ME LIKE A GROUCH."

register as any one else," replied the old man. "And, let me tell you, I'm not ashamed of my name!"

"Come with me," said Ransome. "Come in and see the superintendent."

"I don't want to be hard on the young fool," said the old man. "If you will just speak to him, and let him know that he ought to be civil and polite, and you can't get along in the world by acting as he is—that will be all."

Ransome led him into the office of the superintendent.

"This is our man," said Ransome. "Been in Boston and Halifax, and admits he is shipping bricks now."

"What do you mean?" demanded the old man.

"Now, Mr. Wallingford, you have been shipping a lot of bricks and junk through our company, and you had better make a clean breast of it," said Bailey. "This is a very serious matter."

"You bet it's a serious matter—a young clerk out there poking his nose into my business. I don't want him fired," replied Wallingford.

"I think we ought to get an ambulance," said Ransome.

"And what for?" asked Wallingford. "Is he sick?"

"Mr. Wallingford, it's got to stop!" said Bailey.

"Well, you are the people to stop it. You can't expect your customers to stop it," replied the old man calmly. "When a thing's wrong in my business, I stop it."

"THE CONSIGNEE HAS TIME TO GROW OLD AND DIE BEFORE THE STUFF ARRIVES."

"Now, Mr. Wallingford, we don't want any scene. We are going to call an ambulance. You're ill, and you go along with the doctor when he comes," said Bailey.

"I go with a doctor!" exploded the old fellow. "I go with a doctor! I *go* with a doctor! What's the matter here? What does this mean?"

"Don't get violent," said Ransome.

"I'm not getting violent; but you can ship those bricks, or leave them," he said. "I'm busy; but, remember, I delivered those bricks to you to-day, and they want to be on their way to-night. I'm going. That taxicab is eating its head off."

He started for the door. Ransome barred the way.

"What is this? What does this mean?" demanded the old man.

"Now, don't get excited," said Ransome. "You must stay here till we get an ambulance, or we will call a policeman."

"Great peppers!" exclaimed the old man. "I don't understand this flim-flam game. But may I use that phone?"

"Yes," said Bailey, and the old man took up the receiver, while Ransome whispered to a clerk to get the policeman on the post and tell him to call an ambulance for a crazy man.

"Hallo! Is this the office of Judge Johnson?" asked the old man when he obtained his connection. It was, and he requested to be switched onto the judge's wire.

"Hallo, judge!" said Wallingford, a bit excited. "This is George W. Wallingford. I'm in some scrape over here in the Western Express Company's office. I think I am accused of larceny, burglary, train-robbery, and, in addition, am threatened with incarceration. No, I don't know. Come over and find out what it's about."

Turning from the phone, the old man said: "My attorney will be here in about a minute. He's just over at No. 111, and I guess we'll find out who's who."

While waiting for the arrival of the lawyer and the ambulance, the trio sat in silence, Wallingford snorting now and then. It was not a long wait. Johnson was the first to arrive.

"What's the matter?" asked Johnson as he came in. By reputation he was known to the superintendent of the express company. He was in class "A plus some" among attorneys.

"I don't know," said Wallingford. "I'm a prisoner. Ask the jailers. This fellow is the main warden," pointing to Bailey.

Johnson turned inquiringly, and Bailey said:

"For months, this old man has been shipping brick and everything else to a supposititious person in the West. There's tons of trash in our unclaimed department sent by him, and now he tries to ship two more boxes of brick. He's a lunatic, and we want him locked up."

"I ain't a lunatic, and I never shipped any brick by express in my life before to-day," said Wallingford hotly, rising and shaking his fist at Bailey.

"What if you did?" said Johnson. "That's not a criminal offense. If you want to ship the whole output of your brick-yard and tile-works by express, these people have to carry it." There was the clang of an ambulance-bell outside, and a white-coated doctor and a policeman hurried in.

"Stay out there for a minute," said Johnson, closing the door and then turning to Bailey: "Mr. Wallingford is not in need of the services of a physician. Now, if he goes away from here, he goes as a prisoner. What is your charge? What's it all about?"

"He's been shipping this junk," said Bailey.

"I said you're a liar! I say it again!" interrupted the old man.

"He's getting violent," said Ransome.

"I'm losing the biggest contract that was ever let in the West, if those two boxes of bricks aren't in San Francisco in time for the contractor to show the kind of material he proposes to use!" blurted the old man.

"I don't care what you do about arresting me. But those bricks must get off to San Francisco to-night. Do you suppose I would have brought them into the general office here and hired a taxi-cab if I didn't want them to go? Do you suppose that I wished every one to know that the Guardian Tile and Brick Company was figuring on putting a plant in California if it got the contract? Poking your nose in my business! Why, Johnson, these people are a lot of idiots! It all started with that whipper-snapper out there with the fish eyes and sloping forehead!"

He pointed to Fogarty.

Guardian Tile and Brick Company, contracts, a lawyer, and the few other things, caused a shortening of sail on the part of Bailey and Ransome.

Bailey even offered to explain everything if Mr. Wallingford would be quiet. Johnson said his client would, but it must be understood he made no waiver to any rights he had in a suit, as he had been detained a prisoner. Bailey then told what had aroused the suspicions of the company. Of course, Bailey and Ransome were sorry for the mistake.

With a lawyer seeing everything and taking everything at its legal value, there

were no difficulties, except that the brick manufacturer, justly indignant, was threatening suit.

"You don't think he will sue, do you?" asked Ransome.

"No," said Bailey. "Johnson's a sensible man. His business is largely with corporations, and he understands. But it has shown us one thing—we cannot be too careful. A coincidence like this is likely to happen any time."

The telephone-bell rang, and Mr. Bailey answered it. When he had finished with the person on the wire, he turned to Ransome and said:

"That was the agent in Jersey City. He says that while unloading a grand piano, or what was supposed to be one—it being in a piano-box—the thing dropped on the platform and was wrecked. As near as he can make out, it contains what was once a fire-escape, and was packed in excelsior. It weighed eleven hundred pounds, and was shipped from St. Louis four days ago. Can you beat that?"

"I can't even tie it!" replied Ransome. "Our man is working East. He is one of the men whose name is on this list. I'm going to save time and wire this list to St. Louis, and ask an agency there to look over the hotel registers and find if any one of these men were in St. Louis within the past week."

"Do it now," said Bailey.

In an hour the list, with a request that every hotel be combed, was in the hands of a private detective agency in St. Louis. Orders also went to the express-agent to get every particular as to the shipment of a piano on the date mentioned, and advised him that Mr. Ransome would be in St. Louis the following afternoon.

There was just time to catch the twenty-four-hour train to the Mound City, and Ransome went West on it. When he arrived he found everything waiting for him. The only man of the twenty-five on his list who had been in St. Louis was George W. Wallingford, who had registered at one of the hotels. Wallingford had been there, attending a conference of manufacturers, and had made an address before the gathering on the utilization of a combination of steel and clay and iron and clay in fire-brick.

Ransome gasped as he obtained a description of the man, and recognized the one who, less than a day and a half before, had been shipping bricks in the main office in New York. From the express-agent it was learned that he had found that the man who shipped the stuff had purchased a piano-box across the street, where there had been a fire in which the fire-escape had been badly twisted by the heat.

The purchaser had had part of the escape packed into the box, and had ordered it shipped to the Guardian Tile and Brick Company of New Jersey.

The next morning, Ransome sent a telegram to Superintendent Bailey, telling him all, and that he would be in New York next day.

"Well," said Ransome, when he showed up at the office of the superintendent, "what's he say now?"

"We gathered up the piece of scrap-iron the best we could, and Wallingford paid thirty-three dollars express on it without a murmur. But he has been on the phone since, demanding some part of the junk that he says is missing.

"I went over and saw Johnson. He says that it is all right—that the old man bought the iron because it had been through fire and subjected to a terrific heat. He wishes to do something in the combination of fire-brick and iron, and wanted that stuff for laboratory experiments. He wanted that particularly, because a lot of manufacturers out there saw the fire, and he proposes to demonstrate some theory that he expounded at their annual convention. I guess we had better cut Wallingford out of any future consideration in this matter."

"I'm willing to cut him out, but he insists upon butting in," said Ransome.

"This looks to me as if it will have to be solved by chance," said Bailey.

"Not at all," replied the detective. "It will come by the process of elimination. Wallingford was the exception that proved the rule. If he had not butted in, the chances are the hotel registers of Philadelphia would have eliminated him, although, with a factory in Jersey, it is more than likely he will be found registered at Philadelphia, too. I'm going there in the morning."

Ransome was gone for several days. There came no word of him, and there

"YOU HAD BETTER MAKE A CLEAN BREAST OF IT."

were no more shipments of junk recorded, so far as known. From the South, one day, Bailey received a telegram, which read:

> All over but the shouting. Am starting home. RANSOME.

For two days, Bailey fretted with anxiety.

"I won't ask you to guess," said Ransome, when he arrived.

"This was a purely speculative proposition on the part of a band of crooks who did not have the courage to crack a safe," said the detective.

"In Philadelphia, there was just one man left. When I began to look him up, I found that he had a police record. Further, I learned that, at one time, he had worked for us, and, later, had worked for the Pullman Company. In time, he was discharged for crookedness.

"He is now in the Georgia Penitentiary for forgery. He conceived the plan, and it was all with the hope of making a few hundred dollars. Through his former connections, which were in San Francisco, and through a clerk here, who has since left the service, he hoped for aid.

"He learned from railroad reports that express packages frequently go astray, for which the company must pay.

"When the opportunity presented itself in New York, he gathered a box or two, filled them with stuff, and shipped them to San Francisco. His friend there was informed of the shipment, and kept him informed as to its arrival. What gave him the idea was that he lost a uniform while he was in the Pullman service, and we paid him what it cost him.

"He figured that the longer the haul the greater the chance of its being lost. He shipped from points East until he was shifted to the West, and then he shipped to points East. He generally stopped at one of the commercial hotels.

"He used any name he wanted—never his own and never the same name twice. Two packages were never delivered to this office, and he has claims against the company. The claim, he said, was being put forth in the name of a friend in San Francisco, who, according to him, is perfectly innocent.

"It's for a box that weighed one hundred pounds, shipped last October. His working partner here in the office advised him that it did not arrive. He directed me to a friend in Atlanta, who had his effects. There I got these," and Ransome drew forth several dozen receipts.

"Good work, Ransome!" said Bailey.

"Yes, but let us be thankful that he committed forgery."

Just then a clerk came in, and said that an old man was outside.

"Show him in," said Bailey, and G. Washington Wallingford entered.

"Delighted to see you, Mr. Wallingford," said the pair in chorus. "What can we do for you?"

"Do for me! What haven't you done to me that you can do? Look at that telegram! That's from my traveling salesman!" He read this telegram:

G. WASHINGTON WALLINGFORD: Have been arrested and held here as a suspicious person because I was seeking information about shipment of bricks. Express company, the complainant, says I am a lunatic. Contractor gets in from Spokane to-morrow. Must have bricks to close with him. Won't let me have a lawyer, and won't even let me pay for bricks. Have them as evidence.

ANDREW MCSCHLAPP.

"What kind of concern is this?" demanded Wallingford.

"I'll attend to it right away. I'll telegraph to San Francisco," replied Mr. Bailey, and he wrote:

AGENT, SAN FRANCISCO: Big mistake made in arrest of Mr. Andrew McSchlapp. Release him at once, withdraw complaint, and give the bricks to him. Has no connection with other shipments. Advise me at once of his release. Must act quickly.

BAILEY, Superintendent.

"He will be released five minutes after this gets there," said Bailey. "Give me your telephone number, and I'll call you in an hour or so."

"Telephone Judge Johnson!

"I'm through. You're too much for me," said Wallingford. "He's drawing papers now for suits against this company, and if I ever ship another brick by express I'll forfeit the right to be known by my front name! Good day!" and George Washington Wallingford stalked out.

"A funny world, Ransome," remarked Bailey.

"Yes, it is, when you can't tell whether a man who ships bricks by express is a nut, a crook, or a shrewd business man," replied the detective.

SIMPLIFY RAILROAD LANGUAGE.

J. A. REEVES, general freight agent of the Oregon Short Line, is quoted in deprecation of the terminology employed in many railroad affairs, and believes it is responsible for much misunderstanding arising between the public and railroads. In elucidating this he says:

"Such terms as a blanket-rate, for instance, we use in this office every few minutes, and we are too apt to forget that it means absolutely nothing to the average business man. To us it is clear as crystal, and when we, as railroad men, try to talk to the public we naturally fall into the expressions of our everyday life.

"Take doctors, for instance. I, for one, know that the usual conversation or written articles by a physician is all Greek to me. He scares me to death with a name a foot long that, after I have looked in the dictionary, I find means only a sore throat.

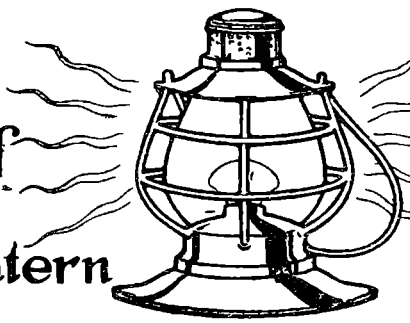
"So it is to a large extent in the railroad business. Now, take the expression, 'mileage rate.' To a railroad man nothing could be plainer, but I have come to know that to the average intelligent citizen it means nothing.

"'Class rates,' 'commodity rates,' 'differentials,' 'demurrage,' 'what the traffic will bear,' 'joint cost,' 'constructive mileage,' 'water competition,' 'grading back,' 'distributing points,' 'basing points,' 'zones,' 'postage-stamp rate'—all these expressions appear to be a language used only by railroad men, and those few others whose business throws them into close contact with shipping and freight matters in general.

"I will admit that it is up to the railroads to tell what they have to say in plain English, and not in the peculiar lingo we talk among ourselves. I do not know of a single book that explains the subject of rates, for instance, in plain everyday language commonly understood by the average citizen.

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

HOW is wrought iron made? (2) What was the earliest process for making steel?—M. S. B., Philadelphia.

(1) Wrought iron is the product of the puddling process. It is made in a reverberatory furnace by melting pig iron on a hearth of iron oxide, over which passes a reducing flame which causes the carbon to unite with the oxide, during the mixing which the puddler gives it, and further causes a large portion of the impurities to enter the surrounding slag. As the impurities—carbon, manganese, phosphorus, sulfur, silicon—leave the molten iron, the melting point rises so that the iron becomes first viscous, then pasty.

When it has been worked into a ball the puddler carries it, still at a welding-heat, to the hammer or squeezer, where the greater part of the slag which permeated it is expelled from the mass. The roughly shaped slab is then rolled into muck bar, which latter, when piled, rolled, and rerolled, becomes the wrought iron of commerce.

(2) The cementation process is the oldest for making steel, and was founded on the fact that wrought iron, if packed in charcoal, and heated to a high temperature, while excluded from air, absorbs carbon. The process consisted in packing bars of wrought iron, of about three quarter-inch thickness, in charcoal, and then sealing up the vessel and keeping it at a yellow heat until the carbon had penetrated to the centers of the bars and converted them into steel.

It was a slow procedure, as the carbon penetrated only at the rate of one-eighth inch in twenty-four hours. The use of steel made by this process was always limited, due to the fact that it contained the old seams and slag marks, which everywhere crossed and recrossed the iron, causing great trouble in the manufacture of cutting tools.

By melting this steel, however, in a covered crucible, the seams and fibers of slag all disappeared, and a homogeneous ingot was the result. But this was still a long way to a steel ingot, and the pursuit of cheapness eventually gave rise to the direct method of melting iron in a crucible, made for the purpose, together with the requisite carbon and other ingredients necessary for imparting hardness, tough-

ness, etc. This in turn was succeeded by the Bessemer process, and this largely by the present open hearth method.

G. W., Yarmouth, Nova Scotia.—(1) You should not attempt the use of cement of any grade to keep boiler-tubes tight, whether on a model boiler or not. We cannot recommend any cement, because we don't know of any which would be satisfactory in the presence of heat and water conditions. If the tubes are properly set, which of course must be done, no cement or any other agent is necessary.

(2) Steam gages can be secured in any size and for any desired indication. You will find numerous advertisements of manufacturers of boiler fittings in the technical papers. See reply to "R. W. B." in the Lantern Department of the April RAILROAD MAN'S MAGAZINE.

(3) Sixteen years is rather young to enter railroad service in any capacity, but if you have an aptitude for mechanical problems, as your letter suggests, our advice would be for you to enroll as an apprentice with one of the big roads. You could not get on as fireman, for some time anyhow, and it might be that contact with the machinist's trade would prove so pleasing that you would forget all about your idea of some day running an engine. Better make haste slowly in decisions of this kind.

WHY is it necessary for a train that is on a siding to be moving slowly while being passed? Why not let it stand still?

(2) When a coach or any other kind of truck becomes dry, and a hot box occurs, while the train is running at the rate of forty-five miles per hour, what is liable to happen to the truck or wheel?

(3) Why are the rates more coming from the West to the East, than they are going from the East to the West?—H. D. P., Cleveland, Ohio.

(1) You are either mixed, or your question has mixed us. There is no such proceeding. The freight-trains generally pull down to the end of the turn-out in the direction in which they are moving, to allow room for any other freight which may come up behind. There is little room for any maneuvering with the long freight-trains of to-day.

(2) Nothing will happen, as the hot box will be discovered and the proper remedy applied before any serious phase is assumed. Of course to deliberately run the box without attention might result in the journal becoming so hot that it would twist off, but this is a very rare accident, and must have unpleasant consequences for whoever is responsible.

(3) The rate business is a queer game, and, to be candid, we don't know. It has been suggested that the reason for the difference in the territory west of Chicago is to favor the home-seekers and colonists, the same consideration of course not applying in the travel from West to East. This seems reasonable.

ARE there any roads which use "19" orders altogether, with some additional safeguards?

(2) Is the Pennsylvania a four-track railroad from Pittsburgh to New York?

(3) Which road carries the largest coal traffic in the East, and what time of the year is it moved?—A. B. K., Clinton, Iowa.

(1) Don't know of any.

(2) Practically all the way.

(3) It is about even up between the Baltimore and Ohio, Philadelphia and Reading, and the Pennsylvania. The heaviest movement is generally in the spring.

O. F. A., Waterloo, Iowa.—(1) If there is such a thing as a standard freight-engine on Eastern roads, the 2-8-0 type would best express it, so far as the wheel-base is concerned, but there is a wide latitude in the boilers and other features of design. As your question asked particularly about the wheel arrangement this will no doubt supply the information; they have an engine-truck with a single pair of wheels, eight connected drivers—four per side, of course—and no trailer. The weight is approximately 100 tons.

(2) The road referred to has quite a good freight business, and has increased its freight-cars to a present total of 1,669. We cannot recall any part of it having six tracks, although in many places four tracks are in evidence.

(3) There are few train orders issued where the absolute block system prevails, but in such cases they are sent to the station operators.

W. H. E., Haswell, Colorado.—The second-hand on a railroadman's watch, or any other watch excepting a stop-watch, is not of any particular value save that it indicates exactly the variation of the time-piece from the chronometer or standard clock by which the watch is regulated. Road men compare with this latter whenever opportunity permits, and get naturally a much better line on what their watches are doing than if they had to depend on the minute-hand alone.

Every roadman, as a rule, knows exactly the variation exhibited by the watch he carries. When the watch leaves the inspector, after one of the periodical examinations, it is set to have the second-hand run evenly with the minute-hand, and it will continue to do so unless the owner allows it to run down, and fails to use proper care in properly setting the minute-hand when he starts it.

E. E. H., Roseville, Colorado.—No opportunities in the Hawaiian Islands for car-builders as yet, and no prospects of there being any. Do not think of going there to depend on that line of work.

G. C., Pittsburgh, Pennsylvania.—So far as we can learn opportunities are fairly good for steam-railroadmen on the west coast, better of course in southern California than in the immediate vicinity of San Francisco, as there are less men to draw from. Having had experience in the dual capacities of fireman and brakeman you should not experience any particular trouble in getting work. The pay is generally much better than in the East. We never heard of any roads only running six months in that section, but of course, slack times occasionally intrude which necessitate reductions and rearrangement of the trainmen.

J. V. S., Loring, Alaska.—The Mississippi River and Bonne Terre Railway has headquarters at Bonne Terre, Missouri. It is forty-six miles long, standard gage; has nineteen locomotives and 1.115 cars.

WHAT causes an injector to make a clicking sound when working?

(2) What effect does it have on a water pump to reduce the size of the suction-pipe, say to half the original size, and just what effect would it have especially on a high lift?—P. J. F., Mechanicsville, New York.

(1) There is a clicking noise at times when an injector is being started, and also when shut off, in both instances this being the seating of the check-valve. Any such noise when the instrument is supposed to be working is a pretty good indication that it is about to "break." You, of course, understand that when an injector is working perfectly there is always a continuous and rather harmonious accompanying sound due to the speed of the delivery-stream through the long branch pipe, etc., and any variation in the familiar cadence generally implies that something is going wrong in a short time.

(2) Reducing the suction of a pump simply reduces the quantity of water supplied to the plunger. Unless the area of the suction is reduced too much it will not have any material difference on the working of the pump, although the supply by the atmospheric pressure should be as free as possible. If the supply is too greatly reduced it will entail hard labor on the suction end of the pump, and will also cause it to work by jerks.

A. R., Boston, Massachusetts.—The larger railroads do not maintain exactly what might be called an "inventive department," but some of them, notably the Pennsylvania, spend annually considerable time and money in perfecting ideas, which have been suggested for the betterment of cars, locomotives, and shop practises. This road has no doubt spent more money solely for research work than any other anywhere, with the possible exceptions of the Great Northern, or the London and Northwestern, of England.

ACCORDING to the law and its rulings, which went into effect March 4, 1908, how many hours must a railroad office equipped with telegraph service be opened to be considered a night and day office?—F. A. C., Andover, Massachusetts.

For your full information and for that of several others inquiring along the same lines this month, we reproduce Section 2 of the Hours of Service Act, which covers this particular phase:

"That it shall be unlawful for any common carrier, its officers or agents, subject to this act, to require or permit any employee, subject to this act, to be or remain on duty for a longer period than sixteen consecutive hours, and whenever any such employee of such common carrier shall have been continuously on duty for sixteen hours, he shall be relieved, and not required or permitted again to go on duty until he has had at least ten consecutive hours off duty; and no such employee who has been on duty sixteen hours in the aggregate in any twenty-four hour period shall be required or permitted to continue or again go on duty without having had at least eight consecutive hours off duty; *Provided*, That no operator, train despatcher, or other employee, who by the use of the telegraph or telephone despatches, reports, transmits, receives, or delivers orders pertaining to or affecting train movements shall be required or permitted to be or remain on duty for a longer period than nine hours in any twenty-four hour period in all towers, offices, places, and stations continuously

operated night and day, nor for a longer period than thirteen hours in all towers, offices, places, and stations operated only during the daytime, except in cases of emergency, when the employees named in this proviso may be permitted to be and remain on duty for four additional hours in a twenty-four hour period or not exceeding three days in any week; *Provided further,* The Interstate Commerce Commission may, after a full hearing in a particular case and for good cause shown, extend the period within which a common carrier shall comply with the provisions of this proviso as to such case."

J. A. F., Freeport, Illinois.—The idea of three tracks for certain special conditions of traffic has been advocated for many years, but has not been carried out anywhere that we know of in the thorough acceptance of a three-track road. The arrangement is intended to solve the problem presented in an unequal balance of the traffic at certain times of the day.

For instance, over the Erie Railroad, entering Jersey City, it is all inbound in the morning and all outbound in the late afternoon. A third track which you suggest could help out the inbound movement in the morning, and, reversing its functions, help out the outbound in the evening. A train despatcher's duties remain the same no matter what the number of tracks may be.

R. W. H., Bunglass, Canada.—A more accurate calculation would certainly be secured in arriving at tractive effort by squaring the piston diameter and multiplying this result by .7854, but this renders the formula somewhat cumbersome and does not materially affect the result. This refinement has at all events been omitted in the accepted formula, which we quoted in the December Lantern Department. The rule given by M. N. Forney in his valuable "Catechism of the Locomotive" is:

"Multiply together the area of the piston in square inches, the average effective pressure in pounds per square inch on the piston during the whole stroke, and four times the length of the stroke of the piston, and divide the product by the circumference of the wheels, the result will be the tractive power exerted in pounds."

In applying the above-quoted rule it should be borne in mind that the length of the stroke may be taken in feet, inches, or any other measure, but in making the calculation the circumference of the wheels must be taken in the *same* measure as the stroke of the piston. The mean effective pressure is in all cases generally assumed to be 85 per cent of boiler pressure, and many years experience covering the study of thousands of indicator-cards shows this to be a safe working factor.

However, the accurate way for calculating the average or mean pressure is to divide the length of the piston's stroke in inches by the number of inches at which the steam is cut off; the quotient is the ratio of expansion. Get the hyperbolic logarithm of the ratio of expansion from the table of logarithms, and add 1 to it, and divide the sum by the ratio of expansion and multiply the quotient by the mean absolute steam pressure in the cylinder during its admission. The result will be the mean absolute pressure during the stroke.

To get the mean effective pressure, deduct the atmospheric pressure. Formulas in general are intended for ready application, and while few are entirely flawless they are adequate in securing the information desired.

WHERE is the longest straight piece of railroad track where you can see a train in the daylight all the way, and where is the longest piece of straight track regardless of going over rolling mounds or hills?

(2) Which is the largest railroad in the United States that is under one name, as the Northern Pacific or Southern Pacific, the system roads in connection not to be included?

(3) What is generally the best equipped railroad in the United States in all departments?—R. A. W., Leland, Oregon.

(1) The longest, according to our records, is on the Buenos Ayres and Pacific, in Argentina, where one tangent is 205 miles long. In New South Wales, from Nyngan to Bourke, is a tangent 126 miles in length, and this is practically as level as a billiard-table, although we have no information in regard to how far a train can be seen. Coming a little nearer home the new Grand Trunk Pacific will have a seventy-mile tangent, and on the Canadian Pacific line, from Regina to Arcola, there is ninety-one miles without a curve. The Santa Fe has about fifty miles between Fort Madison, Iowa, and Galesburg, Illinois. We are also under the impression that there is a tangent on the Norfolk and Western between Petersburg and Norfolk, Virginia, sixty-five miles long and which crosses the Dismal Swamp.

(2) The Pennsylvania Railroad probably best answers this question. It has 5,311 miles in the Pennsylvania proper and 2,757 in Pennsylvania lines west of Pittsburgh.

(3) It is impossible to draw any comparison between roads without being unintentionally unfair, and we can only quote

their own claims for preferment. For instance, the Pennsylvania is said to be the "standard" railroad; the Delaware, Lackawanna and Western "the best developed per mile," etc., etc.

They are all efficiently handled everywhere in the operating and mechanical departments, at least, where practically the same ideas prevail. With the exception of what are known as the Harriman lines the operating organization is the same all over the country.

WHAT type of locomotive does the Chicago, Burlington and Quincy Railroad use in passenger and in freight service?

(3) Where can I get a book explaining the different types of locomotives?

(4 and 5) What examinations do firemen have to pass on the Chicago, Burlington and Quincy, and what is the pay?

(6) Which is the best way to fire a large locomotive?—C. S. J., Mendota, Illinois.

(1 and 2) Reference to their lists shows that they have all the standard and modern passenger types, viz.: Atlantic, Pacific, and Prairie. The consolidation, or 2-o-8 type, seems to be the favorite in freight service.

(3) Write *Railway and Locomotive Engineering,* New York City, New York, for list of books on the locomotive.

(4 and 5) It does not vary to any extent from the procedure on any up-to-date road, and which has been repeatedly outlined in this department. The pay we can only estimate, as we are unfamiliar with their schedules. Probably $2.50 or $2.75 per hundred miles, but this is only a conjecture.

(6) The fire should be maintained nearly level, but the coal supplied so that the sides and corners of the fire-box are well filled, as in that quarter the liability to drawing air is most imminent. With this system closely followed no difficulty need be experienced in keeping up a steady head of steam. From various causes the fire does not tend to burn evenly all over the grate surface, but thins rapidly in spots, but an experienced fireman in glancing into the fire-box knows where these thin places are and loses no time in filling them up.

WHAT is the correct horse-power of the Southern Pacific locomotive No. 4000, weighing 425,000 pounds, and how do you get it?

(2) Has electricity a greater force in railroading than steam, and which are the largest electric and steam locomotives?—E. G., Monroe, Michigan.

(1) A full description of No. 4000 appeared in the Lantern Department of December, 1909, and the formula for calculating horse-power was explained in the same department of the November, 1909, magazine. You can readily calculate the horse-power for the four cylinders of this engine yourself with this reference. It is said, however, that this engine develops a tractive effort of 94,640 pounds at 12 miles per hour, and through another and shorter formula, permissible with these facts as a basis, we find that:

$$\frac{94{,}640 \times 12 \text{ M P.H.}}{375} = 3028 \text{ H.P.}$$

This may roughly serve to afford the information which you are looking for.

(2) We do not exactly understand your application of the word "force" in this connection. By the expenditure of an enormous amount of capital, necessitated by radical changes in existing equipment, it is thoroughly possible to harness electricity as a serviceable motive power for railroads: in other words, the same service can be undertaken which is now handled by steam, provided first costs are thought to be justified.

The largest electric locomotive has been built for the Pennsylvania Railroad for service on the New York City extension of that road. It weighs 330,000 pounds, and will develop 4,000 horse-power. The maximum drawbar pull is 60,000 pounds. The total wheel base is fifty-six feet. The largest steam locomotive is practically the same as No. 4000 of the Southern Pacific above referred to.

WHAT is a "seamless" tube, such as are sometimes advertised for boilers and other purposes?

(2) Is it really possible to make a seamless tube, or is the name merely an attractive advertising feature?—D. E. S., Ridgewood, New Jersey.

(1) A seamless tube is one in which the walls have never been separated from the time the metal was in a molten condition to the time of the completion of the tube. In all tubes formed with a seam the edges have first been separated, then united, either by lap or butt weld, or some lock-joint system, and in these the joint cannot be eliminated by any after processes.

(2) Yes, it is thoroughly possible to produce a seamless tube by any one of three operations. First, a billet may be, by successive steps, punched into the form of a tube with extremely thick sides, and these may then, by the ordinary drawing proc-

esses, be reduced to a tube with thin walls. Second, the billet may be bored, or the blank may be cast with a hole in it, and in either case then be drawn to the required dimensions.

Third, the tube may be made by the cupping process, which consists in taking a disk of the metal, forming it into a cup shape, gradually elongating the cup and reducing it in diameter, and finally by this means producing a tube. The extending use of compressed air and other gases under high pressure has developed a good demand for these tubes for storage-tanks, transmission lines, etc., but their general use is restricted by the cost of manufacture.

W. F., San Luis Potosi, Mexico.—There is really no such thing as a universal railroad time-table. The nearest thing to it which we can suggest is the "Official Railway Guide," published by the National Railway Publishing Company, 24 Park Place, New York City, New York, and which covers the United States, Canada, Cuba, and Mexico, and Bradshaw's, published in England, obtainable through any book-store. For other foreign countries you will probably have to depend on the tourists' guide-books, it being hardly practicable to secure the time-tables of the individual railroads in this country.

A. R., San Bernardino, California.—The ability to learn telegraphy is dependent, like everything else, on the aptitude of the individual, and it is difficult to even estimate how long a time would be required to become proficient. It would seem that in this, more than any other business, practice would be the main requisite for proficiency.

There is, of course, a steady demand for operators, but we fear that it is exceeded by the supply, and as you are no doubt aware the compensation is not so great as that for many other grades of work of far less responsibility and exactness. We know nothing personally of any schools where this is taught, and so cannot pass on their merits here. In regard to the effect on the eyes it should not prove particularly trying.

DOES the piston of an engine stop to make a return stroke, and if so, how long?—H. S P., Pittston, Pennsylvania.

Yes, long enough for the motion of the connecting-rod to change its direction from above to below the center, or vice versa. This occurs at each end of the stroke, but the duration of the actual pause is so brief that it cannot be detected, unless the parts are at comparatively slow speed. The dead stop of the crosshead, or piston, is quite noticeable in instances where rollers are under the wheels of an engine to set valves, and in fact the stop can be felt with the finger if the engine is not moving faster than six miles an hour.

WHY does a locomotive puff smoke when in motion?—G. G. and F. S., New York City.

The steam, after doing its work in the cylinder in propelling the piston, is exhausted into the atmosphere through the smoke-stack, for the double purpose of getting rid of it promptly and to create the vacuum in the smoke arch necessary to secure the draft through the grate and flues demanded in the instance of the very rapid combustion inseparable from a locomotive. The vacuum created by the violent exhaust clears the flues, and hence the smoke which you mention is especially noticeable in most cases while the engine is being fired.

C. E. B., New Haven, Connecticut.—The chances for college graduates with technical training are very good, provided, of course, that sufficient influence exists to secure them an opening in the service. If this influence cannot be commanded the way up must be taken from some subordinate position, as you no doubt understand. The signal department of a railroad is quite attractive, and embodies quite a few possibilities for advancement, but we are inclined to the belief that the general policy is to promote from the lower to the higher positions.

A start, as a rule, must be made as signal repairman; thence to signal supervisor, and to signal engineer. Signal supervisors receive about $100 per month, and signal engineers $150 or $175, but these are only approximate figures, the pay varying widely between different localities.

HOW many tracks are there in the train-shed of the South Terminal Station, Boston, Massachusetts?

(2) How many trains do they handle per day of twenty-four hours in above?

(3) What terminal in the United States handles the most trains, and how many?

(4) What division in the United States handles the most trains per day?

(5) What is the meaning of "articulated" as applied to Mallet engines?—T. E. D., Medford, Oregon.

(1) This station has twenty-eight tracks. With the exception of six or seven tracks,

toward the Essex Street end of the station, which are used by the trains of the Boston and Albany Railroad, the New York, New Haven and Hartford occupies the entire depot.

(2) On the summer schedules 876 trains. This total is reduced some in winter when the heavy travel between Boston and cape points terminates. The busy season for the depot is between June 1 and September 1, and between 5 P.M. and 6 P.M. During this latter hour there are 63 trains outbound and some 23 inbound; a total of 86 passenger-trains handled in sixty minutes.

(3) The South Terminal Station. See above.

(4) We have no accurate statistics for this, as conditions are so variable. Some roads maintain their suburban service entirely separate from main-line trains in connection with terminals, while on others they are in combination; that is, on the same tracks. Probably, all things considered, the movement on the New York Central between Grand Central Station and Woodlawn, including the New Haven trains which use the former's tracks, represents about the busiest movement in eleven miles.

(5) The word "articulated" was selected in connection with that type of engine as best illustrative of the jointed main frame, which allows independent curvature of each engine in relation to one another.

G. H., Miles City, Montana.—Our records do not indicate any Mallet compound locomotives on the Northern Pacific Railroad, but if this is an error we will no doubt be advised of same by some of our friends in that section.

E. G., Fullerton, California.—If you will address *Railway and Locomotive Engineering,* New York City, New York, telling them the book you want, they will secure it for you. There are several of an informative nature covering questions likely to be asked stationary firemen in applying for an engineer's license.

THE "ORPHAN" OF THE "KATY" SYSTEM.

A RECORD of railway ownership and management that is unique, is the "orphan" of the Missouri, Kansas and Texas system. The "orphan" is a seventy-mile stretch of track entirely detached from the main line or branches, and separated therefrom by three hundred miles of distance. Years ago this detached length of road was dubbed the "orphan," by some facetious brakeman. The title stuck, and by that name it is now known to every official and employee of the M. K. and T. system, from president to call-boy.

A glance at the "Katy" map shows the "orphan," unbending and lonesome, connecting the towns of Trinity and Colmesneil, Texas. It is a heavy black dash in a sea of white, with one or two small black lines running to Houston and Shreveport, important cities of the "Katy" system. The line is as much a part of the great system as is the main line running out of St. Louis, notwithstanding its detached and fatherless condition.

Just how the M. K. and T. secured this portion of its system is a story which runs back many years into the days when Jay Gould was the great power of the railway world.

During the period that Mr. Gould dominated the railroads of Texas, he was the owner of the International and Great Northern, and also president of the M. K. and T. The Trinity-Colmesneil branch was built by the direction of Gould, doubtless as a part of the great system with which he planned to cover the whole of that region.

Later, there was a division and an apportionment between the different Gould companies, and the Trinity-Colmesneil line fell to the lot of the Missouri, Kansas and Texas Company. It was then that it came to be known as the "orphan."

True to its name, the "orphan" has always caused the "Katy" a great deal of trouble. In order to reach it, expensive and troublesome traffic agreements with connecting lines have been necessary, and its equipment and maintenance have always been far out of proportion to its earning ability.

The "orphan" has never earned its keep. It has been for sale for many years, but none of the connecting lines care to buy. It is regarded as the predominating white elephant of the "Katy" system.

Just now, however, there is a prospect that the "orphan" is about to grow up. Its owners have ordered that surveys be made from both its east and west termini with the view of linking it with the parent system. Its present unorthodox status will probably pass within a short period, thus making the title of "orphan" no longer applicable.—Edmund G. Kinyon.

KEEPING THE CAR RECORDS.

BY F. W, EDER.

One of the Most Important Departments on a Railroad, but the One Which Gets Least Glory—Some of the Brightest Minds on the Line Work There.

HOW many people outside of a few who go into the car-record office daily, ever think of what it is for?

The agent makes a report of all cars handled at his station daily. The conductor makes a report of all cars handled on his train, and he don't always think it of sufficient importance to follow instructions to make out and mail daily his reports; but these same reports, when they reach the car-record office, become of so great importance that their value is only recognized by those in the office.

All Depend on It.

There is no department of a railroad that is not dependent on the car-record office—from the president's office down to a yard clerk. When the president wants to know where his cars are and what they are earning, or how many cars belonging to other companies are on his line and what they are costing him, this information is compiled in the car-record office.

The general manager finds he needs cars and wants them located; he gets his information from the car-record office. The superintendent of transportation wants to know where a car or a number of cars are, so he can trace them, loaded or empty; he gets his data from the car-record office.

The general superintendent is required to give a detailed movement of certain cars, loaded or empty; he secures it from the car-record office; and in the same way the superintendent, general yardmasters, and agents, when they want any information that they cannot secure at their own offices or stations, apply to the car-record office.

Then the freight department—who furnishes them information as to delays to freight movements of cars in order to settle claims? The car-record office.

Then the auditor's office, in order to compile the earnings and expenses, secures a monthly statement of mileage and *per diem* on home line and the same on home cars on other lines, so that the profits can be computed. The legal department calls on the car-record office for data in suits.

The mechanical department calls on the car-record office for movements of cars; and through the whole system every department knows there is only one place that certain information can be secured in order to complete some data that shows the workings of its own department.

With this importance, the recording of information permanently that involves millions of dollars yearly in railroads—how many railroads or their officials ever think of the great importance of the car-record office, or the scope of its usefulness?

Some of the Real Work.

In an experience of over twenty-five years in the car-service departments of four roads, I have only known of one where the car-record office was on its proper basis, and that was only because the head of the office was placed in a position where he could command the recognition that he warranted.

In the car-record office you find some of the brightest minds in any railroad—minds drilled to work out details and accurately show results. Are they known outside of the office? Very seldom.

Let any one interested go into any car-record office, follow up for a day or two the many different duties of the head of the office or his assistants, then look over what a recorder has to do and contend with, then delve into the knotty problems of the *per diem* clerks, not overlooking the trace-clerks, and he will wonder when and how it is all done in the time it is, and done so well! but he will have a better and a broader idea of where the real important work of a railroad is done.

THE CARD ON THE BEAM.

BY NEVIL G. HENSHAW.

Cherry Turner Might Have Made the Journey to the Pan Handle — But He Saw a Vision.

AFTER he had read his letter, Cherry Turner, buster and nominal foreman of the Circle K, stepped down from the platform of the station at Kade.

He was under thirty, clear-eyed and regular-featured, with a face as innocent of beard as that of a new-born babe. He was dressed in the wide Stetson and flannel shirt of the puncher, and his trousers were protected by a pair of dull leather chaps—severely plain, without either fringe or buckle. At his hip there hung a .45, and about his neck was loosely knotted the handkerchief of cherry red from which he had derived his name.

The letter was scrawled in pencil upon a sheet torn from a tablet, and was dated from the Pan Handle. It ran:

> DEAR CHERRY: Last week our buster got throwed and broke his leg so bad the doc says he won't never ride no more. Buck Jarvis, our foreman, has heard about you, and he says, if you're willing, you can have the job. He says he'll hold off a week, after which he'll get some one else. So, come a running. From your friend,
>
> FRIO JONES.

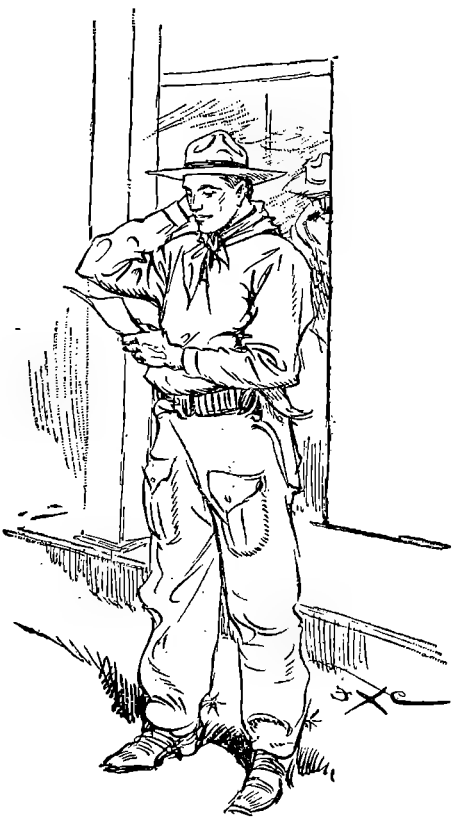
Cherry read the letter a second and a third time to make sure, and then thrust it into the pocket of his shirt with an exclamation of joyous amazement.

"Sho," said he. "I reckon that's goin' some."

Indeed it was, for of all the great outfits of the State the Bar Circle, under Buck Jarvis, was the most celebrated. To punch with it was in itself no small honor. To have the breaking of its mustangs was to occupy a position of glory.

As he strode toward his pony, Cherry's brain was in a whirl of pride and pleased anticipation. If he were willing he could have the job. If he were willing!

Why, there was not a puncher on the whole gulf range, or in all Texas, for that matter, who would not have given his very soul to possess it. And the fore-



CHERRY READ THE LETTER A SECOND AND A THIRD TIME TO MAKE SURE.

man would hold off for a week. Of that he was sure.

That there might be no chance of his changing his mind, Cherry decided that he would leave the following morning.

He had already begun a mental picture of his triumphal progress to the Pan Handle when a thought came to him that toppled his air-castles into an abyss of black despair. How was he to make the journey? There would be the price of his ticket and of shipping his pony, without which he would not have stirred.

Thrusting a hand into the pocket of his trousers, Cherry drew forth four silver dollars—the remnants of his pay spent in Beaumont the week before. Save for this amount, which he had prudently saved for tobacco and other essentials, he was penniless. His companions, he knew, were equally bankrupt.

For a moment, he thought of the proprietor of the Circle-K, and then dismissed the idea as useless. Surely Kade, his employer, would not furnish the means of ridding himself of so valuable a man.

Caught upon the horns of this dilemma, Cherry stood for a while motionless and thoughtful, the four coins still in his hand. He had abandoned all thought of an immediate return to the ranch, and the sight of the money, coupled with the heat of the sun, finally forced upon him the consciousness of a raging thirst. Returning the silver to his pocket, he picked up his pony's anchoring bridle from the ground.

"Sho," he said, "there ain't no use worryin' about somethin' you can't help. I'll take a drink and let her straighten herself out the best way she can."

With this philosophical reflection, he set forth toward the saloon across the way.

II.

LOPEZ'S saloon, being of two stories, was the most imposing building at Kade. Cherry called for a cold bottle, a luxury that had become possible at Kade through the advent of the newly built G. and I. Strictly speaking, the term was a polite fiction, as the beer was cooled by the simple process of putting a piece of ice in the glass.

Having served his customer, Lopez returned to the game of twenty-five-cent stud poker which he was playing at a table covered with a square of carpet.

Cherry drank his beer slowly and meditatively, pausing now and then to listen to the cool tinkle of the ice against the glass. When he had finished he went over to the card-table and began to watch the game.

Three men were playing: Lopez, a puncher from a neighboring ranch, and a small, crafty looking individual who had most of the chips before him.

Cherry knew both Lopez and the puncher well. The third man had not the pleasure of his acquaintance, although he was a citizen of Kade. His name was Dorsey, and he was heartily despised by the punchers, for it was said of him that he allowed himself to be supported by his wife.

At Cherry's approach, Lopez looked up from his hand.

"Come on in," he suggested.

"Sure," urged the puncher. "Three ain't no game."

Dorsey said nothing, being intent upon his cards.

After a rapid mental calculation, Cherry drew forth his three silver dollars and what was left of the fourth after paying for his cold bottle.

"All right," he said. "I'll stay in till this is gone."

He won from the start, and continued winning for the best part of an hour. Most of his chips came from Dorsey, who began to fall behind in the game.

Dorsey took his losses in a species of silent fury, betting wildly on each card in the hope of forcing his luck. Each time that his hand was bettered he would glare across the table at his opponent with a look of hate in his shifty eyes, and he kept continually repeating, "I never could have no luck in a four-handed game."

Finally, Cherry, grinning maliciously, replied, "Why don't you pull out, then, and make her three-handed again?"

But Dorsey shook his head.

"That's all right, young man," he growled. "I'll git you yet. Jus' you wait an' you'll see."

As he spoke, the opportunity for his vengeance arrived.

Lopez, who was dealing, turned up an

ace for Dorsey's second card. To Cherry he gave the queen of hearts. The others having nothing of account, turned down their hands leaving Dorsey and Cherry to fight out the pot between them.

Having the highest card, Dorsey bet off and was immediately raised by Cherry.

"WILL YOU LET THIS GO AS A SET-OFF TO THAT BET?"

After he had raised back again his opponent called, and the third card was dealt. This time Dorsey received a second ace and Cherry the jack of hearts. Again Dorsey bet and again his opponent called.

With the fourth card, Dorsey received another ace and Cherry the ten of hearts.

Lopez settled back in his chair, laying the deck upon the table in the manner of one who has finished with his deal.

"That'll be about all," remarked Dorsey confidently, as he bet again.

Cherry was of a different mind. Carefully lifting the edge of his first card, which lay face down upon the table, he gave it a glance and then threw a chip to the center.

"I reckon I'll take one more whirl for luck," he said.

"Flush," commented Lopez, and dealt the fifth and final card.

In Dorsey's hand there now were showing three aces and the eight of hearts. Cherry was possessed of the nine, the ten, the jack, and the queen of hearts.

Amid the silence that followed the completion of the hands, Dorsey's quick breathing could be heard distinctly. Cherry's face was inscrutable as he carefully arranged his cards. Lopez and the puncher leaned forward, carefully examining the hands.

After Dorsey had bet off and Cherry had raised, the chips rattled furiously until the stakes of both players were gone.

Then Dorsey leaned back in his chair, pale and excited. His brow was wet

HE NAILED THE CARD TO THE BEAM.

with perspiration, and there was a look of greed and cunning in his eyes.

"It sure is always my luck to git a real hand in a measly little game like this," he complained. "Now, if we was playin' for real money I'd show you some gamblin', young man."

Cherry, who was as calm and collected as he had been at the beginning of the game, met this challenge with a smile.

"And I reckon in that case you'd find me some willin' to learn," said he. "If you've got any notion of takin' off the limit, or any such play, you'll sure find me willin' to accommodate you."

A look of sneaking resolve flashed across Dorsey's face, and he straightened up in his chair as though seized with a sudden determination.

"Now, if this was to-morrer mornin'—" he began.

"And if it was?" interrupted Cherry.

"I'd jus' bet you fifty dollars on the hand."

A feeling of peace entered Cherry's soul, and he let out his breath sharply in a sigh of satisfaction. Fifty dollars, and there was almost half as much more in chips upon the table. With this amount he could journey in princely style toward the Pan Handle.

Rising abruptly he went out to his pony, uncinched his saddle, and carried it into the saloon.

"Here," he asked, as he cast it upon the floor, "will you let this go as a set-off to that bet of your'n?"

Dorsey examined the saddle carefully. It was a heavy affair, rich with embossing and silver, and it had cost its owner a cold two hundred in San Antone.

"All right," agreed Dorsey. "It's a go. Bring her in to-morrer mornin' before train time an' we'll turn up the hands."

"Why before train time?" asked Cherry. This was the same hour that he had decided on in accordance with his plans.

"'Cause I'm goin' to B'mont."

Lopez, as banker of the game, turned toward the table to gather up the hands.

"That's a good play, boys," said he. "I'll just lock these up in my drawer with the pot till you need 'em again."

"Sure," agreed Cherry, glancing toward the bar. Then he suddenly looked up at the heavy beam supporting the ceiling that ran above it, and he was struck with an idea.

"Hold on!" he cried. "I got somethin' better'n that."

Behind the bar he found hammer and nails. Going to the table, he picked up his unexposed card and returned dragging a chair behind him.

The others watched in silent wonder as he mounted the chair and nailed the card to the beam, face inward, fastening it securely at the sides and corners so that it would be impossible for any one to examine it without tearing its edge.

"Look here," exploded Dorsey. "What the—"

"Wait," said Cherry, stepping down to the floor. "and I'll put you on.

"You see," he continued, addressing Lopez, "there ain't no use in clutterin'

up your drawer with all them cards. If this here Dorsey party ain't got the other ace, all I got to have is a heart to beat him. If he has got it, then there ain't but one card I can turn up to help me, which is the king of hearts. As he's got the eight, I can't have no straight flush without it.

"Now, all you got to do is to turn up Dorsey's card and see what it is, and lock up the pot in your drawer. In the mornin', I'll pull down my card, which I put where it won't be in no one's way."

Despite its simplicity, this plan did not appeal very strongly to Dorsey's suspicious nature.

"I reckon it'll be all right," he said doubtfully.

The puncher, consumed with curiosity, joggled Dorsey's arm.

"Hurry up an' turn her over," he urged excitedly. "I sure am anxious to see what she is."

In a breathless silence the card was exposed, disclosing the single spot of another ace.

Cherry gazed at it calmly for a moment and then turned to pick up his saddle from the floor.

"That's what I figured," he said.

III.

As Cherry rode back to the Circle K, he was in a pleasant frame of mind. Through his disposal of the buried cards he had determined positively the contents of his opponent's hand; and these contents, notwithstanding their strength, did not disturb him. Instead, they rather reassured him and set his mind at rest.

Knowing well the reputation that Dorsey bore at Kade, both for cowardice and indecision, he had been afraid, that in the event of his having but three of the aces, he would fail to put in an appearance on the following morning. Now, however, there could be no doubt about the matter. Dorsey would surely be there.

As for the card on the beam, Cherry thought of it jubilantly, with a vision of the Pan Handle dancing before his eyes.

"I've got him locked. I've got him locked," he muttered again and again, repeating the words in time with the steady thumping of his pony's hoofs.

Suddenly, far up the road, a spot of red appeared, resolving itself, as Cherry drew nearer, into the figure of a little girl. She was a tiny, elf-like creature, with a thick mop of black hair that was drawn smoothly back into a pigtail and tied with a cotton string. She swung a faded sunbonnet as she trudged along, digging her little feet sturdily into the soft sand of the road.

Cherry drew up before her as she stepped aside to let him pass.

"Hallo, sis," he called pleasantly. "Where you goin' this time of day?"

The child surveyed him thoughtfully with large black eyes.

"My name's M'line," she said finally, "an' I'm goin' to the ranch."

Cherry smiled in the vaguely affectionate manner of one who is both fond of and unaccustomed to children.

"All right, M'line," he said. "Want a lift?"

With a nod of assent, the child stepped forward and Cherry reached down a hand. He swung her onto his saddle, and she sat demurely before him, staring out between his pony's ears.

"And what you goin' to do at the ranch?" asked Cherry jocularly, after he was under way again. "Not goin' to roll me for my job, I hope?"

Turning her head, the child looked at him severely, as if to rebuke him for his levity.

"I'm after some shirts of Mister Kade's," she said. "Maw forgot 'em when she got the wash last time."

"So your maw washes for the old man, does she?" asked Cherry soberly, as if to atone for his former offense.

Once more M'line turned her head, this time to stare at him curiously.

"Sure she does. Didn't I jus' tell you so?"

Abashed and disconcerted by her steady gaze, Cherry abandoned the conversation abruptly, and rode for a while in silence, holding the child carefully with one arm.

"Crismus's comin' soon," observed M'line, following the trend of her thoughts.

Cherry looked as confused as if he had denied the assertion but a moment before.

"Sho, now; so it is," he said guiltily.

"And here I've done gone and plumb forgot it. What's Sandy Claus goin' to bring you this time, M'line?"

"They ain't no Sandy Claus."

Cherry agreed readily.

"Sure they ain't. Leastways, I reckon not in Texas."

"But I'm goin' ter git a present all right," continued M'line. "Guess what it is."

Cherry was silent for a moment, feigning deep thought.

"How 'bout a doll?" he ventured finally.

"How'd you know?"

"I reckon I must have guessed it."

The child smiled happily, holding out her arms in a fond, cradling gesture as if she held the subject of her thoughts.

"An' it's goin' ter be the beautifulest doll you ever seen," said she dreamily. "It'll have yaller hair, an' chiny eyes, an' a sure 'nuff dress what you kin take off. I don't know what I'll name her, 'cause I ain't never had one before, but I reckon I'll call her M'line, after me. Paw's goin' ter bring her frum B'mont."

Cherry smiled approvingly.

"Your paw must be a mighty good man," he observed.

The child's eyes grew scornful.

"No, he ain't," she cried fiercely. "Paw don't never give me nothin'. It's maw. She's bin savin' up all year for Crismus, an' she's got a whole heap of money—most a million dollars, I reckon. She's goin' ter make paw buy her a real stove, an' a new dress, an' some of that there tin grub, an' a whole lot of things. She'd go herself an' take me if it wasn't for her work. Paw, he don't do nothin'."

The words poured forth in such a flood of bitterness that Cherry stared aghast, too overcome to reply. Tightening his arm about the child he gave her a short, sympathetic squeeze, and the two rode on in silence toward the Circle K.

When they reached the ranch-house, Cherry led his charge at once into the presence of Kade. After he had told her errand and she had departed with her bundle of shirts, he plunged at once into his own affairs with the lack of hesitation which he always employed in performing some disagreeable duty. Taking his letter from the pocket of his shirt, he handed it to his employer.

Kade read it slowly, while a little wrinkle of annoyance began to form between his brows. When he had finished, he returned it in the same silence with which it had been received.

"What outfit?" he asked finally.

"Bar Circle."

Kade gave a grunt of surprise and, stepping back a pace or two, surveyed Cherry carefully from head to foot as though he were taking his measure for the first time.

"You goin'?" he asked.

"Yes."

"When?"

"To-morrow mornin'."

Kade nodded thoughtfully.

"All right, Turner," he said. "I don't blame you. You've done well. Remember, if ever you want to come back your job'll be waitin' for you."

"Thanks. I'll remember."

The matter settled, Kade turned away. With his hand upon the door he suddenly paused.

"How you goin'?" he asked. "You're about even with what you've overdrawn."

A look almost sheepish came into Cherry's eyes, and he twisted the brim of his Stetson in nervous embarrassment.

"I got a little speculation over in town I reckon'll do," he said finally, in a low voice.

"Cattle?"

"No, poker. Stud."

The line that had come between Kade's brows faded quietly away and his face expanded in a smile.

"Is that so?" he said cheerfully. "Well, I reckon you ain't gone—yet."

IV.

THE following morning a crowd gathered at Lopez's saloon that comprised the entire male population of Kade. It began arriving a good sixty minutes before train time, an hour that was definite, notwithstanding the irregularity of the G. and I., for Kade, being the first station on the return trip, the train was usually on time.

Dorsey arrived promptly at the half-hour, clothed in the full glory of his store-clothes and carrying a small valise of the variety known as "telescope." His coming was attended by so much curiosity

and excitement, that he immediately dropped his usual attitude of cringing servility and began to put on airs.

After he had taken the seat of honor at the poker-table and had counted out the fifty dollars in small bills and change, he leaned back in his chair with an attempt at importance.

"It don't look like the other gent's present enough to hurt none," he observed, running his eye over the crowd.

The puncher who had been in the game the day before stepped forward.

"Does you mean to say you think he ain't comin'?" he asked pointedly.

"Not at all. Not at all," said Dorsey, as he became more unassuming. "I simply mean he's late."

A subdued silence fell upon the crowd.

Five minutes before train time Cherry arrived, dressed also in the garb of a traveler, and accompanied by a crowd of his companions who had ridden in for the double purpose of seeing him off and witnessing the exposure of the mysterious card.

"HALLO, SIS. WHERE YOU GOIN' THIS TIME OF DAY?"

Notwithstanding their anxious questioning of the night before, Cherry had preserved a tantalizing silence, saying only that if they would come in with him in the morning they could see for themselves. The arrival of this delegation was treated with the deference carefully exacted by those of the Circle K.

Cherry entered, carrying his saddle over his shoulder. He deposited it on the floor, made a hasty inventory of the money on the table and turned to Dorsey.

"Sorry I'm late," he said, "but I had to see about my hoss. I'm goin' away, too."

Dorsey smiled magnanimously.

"That's all right," he replied. "It don't make no difference."

"You are ready?"

"Let her roll."

In the hush that followed this exchange of courtesies, Cherry seized a chair and planted it firmly beneath the beam. As he did so the sound of a whistle was borne faintly in upon the quiet air.

The crowd surged eagerly forward. Dorsey squirmed uneasily in his chair.

"Hurry up," he urged. "She's blowin' now."

With his hand on the card Cherry paused, disturbed by a sudden commotion at the back of the narrow room. As he waited, a small red figure wormed its way to the side of Dorsey's chair and the silence was broken by the sound of a high childish voice.

"Come on, paw," it pleaded. "You ain't goin' ter git left now?"

It was M'line.

A sudden, sickening sensation came over Cherry, and he dropped his hand as quickly as if the card had been a coal of living fire. So the money that he was about to win was not Dorsey's. It was his wife's—the pitiful amount which she had been saving, piece by piece, from her earnings that she might enjoy a few of the necessities of life at Christmas.

If he went to the Pan Handle now he would be no better than the despicable creature before him. He would be living upon a woman's money.

From outside came the rattle of the approaching train, and as Cherry gazed at M'line the vision of the Pan Handle seemed slowly to fade away. In its place came the vision of a doll—a beautiful doll, with yellow hair, and eyes, and a sure enough dress and hat that would come off.

Slowly twisting the end of his gaudy handkerchief, as was his habit in moments of perplexity, Cherry spoke to Dorsey. It was in simple, direct language.

Dorsey rose angrily and pushed the child aside.

"Git outer here," he commanded. "I'm comin' right away."

Then he turned impatiently to the quiet figure upon the chair.

"Let's have her!" he cried peremptorily. "I ain't got all day."

Without a moment's hesitation, Cherry reached up and tore away the card. Then he crumpled it up in his hand and thrust it into a pocket of his trousers.

With an oath Dorsey sprang forward, feeling for his hip, only to recoil in terror at sight of the .45 which had suddenly appeared in Cherry's hand. The crowd surged back uneasily, leaving the two alone in the middle of the room.

"Look here!" gasped Dorsey, white and trembling. "You-all ain't goin' ter let me be helt up this-a-way?"

Then Cherry said, slowly and distinctly, still covering the cringing figure with his gun:

"It's all right, Dorsey. You win. I just don't want you to make no foolish play, that's all. Now you take the money and the saddle and hike for the train, or you'll get left. Likewise, I'd advise you to play your winnin's accordin' to the advice of them who staked you. If you don't, I'll know. You needn't wait for me. I reckon I ain't goin' to-day."

Amid the relief that followed this announcement the crowd surged back again, curious and disappointed, anxiously questioning about the mysterious card.

Cherry smiled sheepishly as he put up his gun and stepped down to the floor.

"Sho," he said, "you-all don't none of you want to see my little old four of spades. Next time I want to run a bluff I reckon I'll be more careful who I try it on."

Then he gritted his teeth and went silently out to face the humiliation of his barebacked return to the Circle K.

One Man's Wreck Record.

BY SAM HENRY.

THE TRUE STORY SERIES. It is generally conceded that the express messenger and the railway mail clerk are in the most dangerous situation of anybody on a train, in case of wreck. Mr. Henry's stories, perhaps, do not advance anything toward proving this, for he has lived to go through nearly twenty wrecks without receiving an injury that would permanently incapacitate him. It is hard to say whether this proves that he is very lucky, or very unlucky.

True, many men fail to survive even one wreck, but to have the misfortune to be laid out more or less seriously half a score of times and to be roughly handled half a score more in twenty-six years is a record that no one need desire to equal. And, after all this, our friend writes us that he is now impatiently waiting until his latest wounds are healed that he may once more go and throw a dice with luck on the railroad.

A Mail Clerk Who Has Averaged Almost One Wreck in Every Year of His Railroad Career, and Who Is Almost Ready To Go Out on the Main Line Again.

TRUE STORY, NUMBER FORTY-FIVE.

WERE you ever shut up in a box-like concern, flying through space at the rate of fifty to sixty miles an hour, working so fast that there is no time for thought of danger, and all at once heard the shrill, distressing whistle of the engine and the terrible grind of the emergency brakes? While the shrieking whistle was still resounding in your ears, have you heard the awful grinding of two steel monsters coming together, it seemed each in attempt to outdo the other in destruction, and at the same time felt yourself being hurled through space and a huge tender telescope your car right where you landed?

I have been there, and words fail to describe the sensation which one experiences at such moments. Many, many thoughts crowd in upon one and flash by. Years, even, are relived in these few seconds.

Fourteen times I have been derailed,

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

and, I believe, six times I have been in the back shops for repair. Let me relate to you now the most startling incidents of the wrecks which I have gone through in the past twenty-six years.

In the early eighties I was on a road in Texas which used coal-burners and the old-time bell-cord for passenger-trains, while the freight-engines burned wood, with no other attachments but the old link and pin for coupling.

THE ENGINEER BROKE THROUGH AN END OF THE CAR AND PULLED ME OUT.

On this occasion our passenger-engine broke down and we pressed a freight-engine into service, which under heavy pressure threw out great chunks of fire, as we soon had cause to know.

The through mail was in the end next to the engine; the transoms were open. I was very busy, but noticed that we were having an unusual amount of smoke.

Investigating, I found that my car was in flames.

Having no way of signaling, I went to the door and did my best in lung power, but could attract no attention. The fire was getting hot, and drove me to the farthest end of the car, where all hope of rescue left me.

I had visions of being roasted alive, and I began to lose consciousness. Dimly I noticed that we slowed down at a water-tank. Fortunately the rest of the train-crew had also discovered the fire.

The train stopped, the burning car was cut loose, run under the water-tank, and the water turned on; but she was too far gone to be saved. The engineer broke through an end of the car and pulled me out. I was overcome by heat and smoke, but after being revived and the burned places plastered up, I returned to my work.

About two months later we were going along at our usual gait, when I was startled by a succession of shrill whistles from our engine, which opened up to the last notch. The next instant I could feel that we were going somewhere where there were no rails.

When I landed and worked myself out, I opened the door and found the car flat upon the ground and off the right-of-way.

Some one was screaming: "Help! I'm killed. Help!"

Following the sound we found the fireman in the tender, from which the coal had emptied; the trucks from the mail and baggage cars were all twisted over him, but, strange to say, he had not received as much as a scratch.

The engine had turned almost around, throwing the engineer into a bank of sand about fifteen feet away. Like the fireman, he was not hurt enough to men-

tion; in fact, no one on the train was severely injured.

This wreck, a fearful mix-up, resulted from an old cow steering a course down the track. In a cut right at the end was a cattle-guard. The engineer attempted to lift the cow before she could reach the guard, but he ran onto her just as she went into it.

Drowning Among the Mail.

Not more than a year after this wreck occurred, I was on another road. It had been raining very hard for several days and the night was as black as pitch.

We were going down a steep grade at a pretty lively clip. Right at the bottom was a small creek with the bridge gone. The engine's nose went down and she turned with her back against the opposite bank, making a pretty good somersault and throwing the engineer.

The car I was in leaped into space and fell into about four feet of water. My hand was jammed in a sliding-door, and all the mail fell against me so that I could not move. I felt the water creeping up higher and higher until it passed my waist, then I heard some one call: "Oh, laddie, are you dead?" I let out a yell that convinced me that I was not.

The old engineer broke in the door and rescued me. Help had not come any too soon, for the creek was coming up all the time. The fireman had jumped into the water and floated away from the wreck.

Just as the engineer and I reached a dry place he fainted. Three of his ribs were broken and he was a mass of bruises and cuts.

I carry a crooked thumb as the result of that experience. I thought the doctor would never get through taking splintered bones from it.

The engineer and I were the only ones hurt, and we were off duty a long time.

An Open Switch.

Before the split-switch days, and about six months after I had returned to work, we were going at a lively rate, being three hours late. At the beginning of a sharp curve was the far end of a siding and a fifteen-foot embankment of sand.

The switch had been left set for the siding by a freight, and as no switch-lights were used we hit this open switch at full speed. Into space we leaped. The engine rolled over several times, and it seemed to me that the car I was in would never stop.

I was buried under about four thousand pounds of mail and nearly smothered before I was dug out. A little water in the face, however, and a drink from a bottle that one of the passengers had, fixed me all right. They told it on the fireman that he landed almost off the right-of-way, and the first thing he did was to holler to the engineer to bring him his new suit of clothes which he had just bought that day. Some of the passengers were slightly hurt, but none of the train crew.

Head-On Collision.

I was not in this wreck, but arrived about two hours after to take charge of Uncle Sam's business. Through a misunderstanding of orders, a cattle-train tried to make a siding for a passenger-train. The freight crew of five men, all on the engine when the two trains met, was entirely wiped out.

The impact was so great that the mail-car was driven completely through the express-car and the tender telescoped them both.

When they found the mail clerk and express messenger, they were together, mixed up with some oysters.

The mail clerk must have passed through two car ends and a partition in his car. How he got there alive was beyond us all. All his wearing apparel, except his shoes, had been torn from him, but the only injury he received was a slight bruise on the arm.

It was rather a frosty night in November; the passengers crowded around and were trying to get some clothing on him. One thought to warm him up, so offered him some whisky.

"I don't drink," he said.

When the express messenger was unearthed his hair was all matted with oysters. A lady standing by shrieked loudly:

"The poor fellow's brains are oozing out, and he is still alive!"

The conductor, who had taken us out on the relief-train, ran a nail nearly through his foot while climbing over some débris, and was unable to wear a shoe. As day began to break some Texas steers were seen lying about, some dead, some injured, others very ready to dispute the territory with any one coming their way.

This conductor wandered off some distance from the track, leaning upon a stick. One of the steers took offense at his intrusion and started for him. He dropped his stick, and the way he covered ground would have done justice to a Texas bronco. He made for an old dead tree that I am certain no ordinary country boy could have climbed, and shinning up it, there he had to remain until Mr. Longhorn chose to move on, as no one else there felt like disputing with the steer.

A Cyclone in the Offing.

Along in 1888 I was doing extra "stunts" for Uncle Sam in East Texas, on a narrow-gage. We burned wood, and whenever we came to a wood-pile, passengers and all would turn out to pitch wood for a rest.

One evening about sundown we were pitching wood, when I noticed a funnel-shaped cloud coming right toward us broadside.

I called the engineer's attention to it, asking him did he not think we had better try to get out into an opening about one mile away, as we were then in the midst of long pine-trees and would be in danger of their blowing across our coaches.

We all jumped aboard, and our engineer pulled out with full pressure. We had gone about one-half of a mile when the hurricane struck us and we began spilling all over the right-of-way. We had run into a very large tree.

After everything had settled down, the express messenger came through the creep-hole into my end. He embraced me and began to lament: "What will my wife do, with six orphaned children? Here I am killed and they are without support. Oh, my Heaven, this is awful! Have mercy on them."

I tried in every way to quiet him, and finally succeeded. The surprise when he found that he did not have a scratch was almost as bad as the thought that he was dead. He told me that he actually believed he had been killed.

Afterward we started to jolly him about it, but soon stopped. A ghastly look would come over his face and he would say so earnestly:

"Boys, don't do that. If you only knew my suffering you would help me try to forget that wreck."

The engineer and fireman were scratched up somewhat and I had the last finger of my left hand broken.

Hit a Broken Rail.

About a year after I was back on a standard-gage. Every morning before our train left the terminal, "Dock," a young fellow working with me, would read aloud the most sugar-coated love-letters that I have ever heard. His girl's safety-valve was smashed all to pieces, and she had one continuous flow of sweet steam.

She was awfully anxious for him to quit the road. "Because, honey boy, I am so afraid you may get hurt," was the wind-up of every letter.

One day a train came in and reported a bad place five miles out on a very sharp curve. The operator overlooked serving us with a notice in regard to this before we pulled out.

We hit the curve; the engine passed over all right, but the rest of the train began to double up. Our engineer opened up and straightened it out.

The car we were in rolled over on the side, but we were not hurt, so I said to "Dock": "Let's get busy now and have everything ready to transfer to the other train which the conductor tells me they will make up and send out."

"Dock," paying no attention to me, began to take off his overalls, put on his best togs, turned over to me everything belonging to Uncle Sam, picked up his little grip and walked off, never so much as saying good-by.

Ten minutes later I looked out and saw him taking a short cut across the prairie toward the place where his girl lived, some twenty miles away. I never saw him again, but the next day I read

in the paper that he and his "honey," as he called her, had coupled up for life.

The Expired Accident Policy.

Just before leaving the terminal, an accident insurance-agent came to my car, inquired if I knew that my policy would run out that night at twelve o'clock, and tried to persuade me to sign another then and there. I told him that I would call and renew it as soon as I returned.

Exactly forty minutes after my policy expired, a big Bohemian, a giant in strength, rolled up his mail-sacks tightly, and as we pulled in, delivered them into the car with such force that he broke my leg and caused me to be laid up for four months.

A Head-On Collision.

After this unfortunate incident, and up to 1904, I had been in several little mix-ups, but nothing worth mentioning. One night we left our terminal forty-five minutes late with a crowded train of eight cars.

Our engineer we called "Old Hot Stuff," because of the fast work he got out of his engine. On this occasion our train was already on a very fast schedule,

THE MAIL CLERK MUST HAVE PASSED THROUGH TWO CAR ENDS AND A PARTITION.

so when he told us that he was going to his regular meeting-point about eighty-five miles away, where we took the siding for the finest and heaviest train that ran across Texas, and that we had the right of track against all other trains, we knew that we were going to do some fast riding.

At our first stop, forty miles out, the despatcher gave us five minutes' help against the fine train, but we were to take the siding as usual. When a train takes the siding and is in the clear the headlight is covered.

We were at the whistling-post one mile away. "Old Hot Stuff" signaled

for the station and at the same time shut off. Seeing the light of the other train disappear at that moment and also a light swinging alongside of the track, he naturally thought the fine train had taken the siding.

As a matter of fact this train had landed on a pile of mail. We had an express-car ahead of us, and our car went through this until it met the tender.

The fact that puzzled every one was no one was hurt on our train, no one in the coaches on the front part of the fine

ONE OF THE STEERS TOOK OFFENSE AT HIS INTRUSION.

stopped and her headlight flipped out, and the light which he had seen by the track had been made by the conductor walking alongside of his train toward the head-end, slightly swinging his lamp as he walked.

"Old Hot Stuff" gave a little *toot-toot,* and opened her wide. We were already going rather fast, but we seemed then to gain by leaps and bounds. The next instant our engine gave the most fearful shriek, the air went on to the emergency, and we crashed into the fine train head-on at a speed of over fifty miles an hour.

I never heard such hissing of escaping steam. The impact was so great that we knocked the other train of eleven cars back three car-lengths. I was hurled through space over twenty feet, and train, but almost every one in the hind sleeper—one so badly that it is said he will be a cripple for life.

While my partner and I were taking stock of our bruises, an enterprising lawyer, who was a passenger, came to our car-door and tried to convince me that I was badly hurt. He was very persistent, and asked me to come out with him to see what a fearful wreck it was.

We started ahead, walking along the side track, but being blinded by coming out of the light we plunged into an open cattle-guard about four feet deep, and I came near biting my tongue off. Mr. Attorney saw that I was bleeding, and he went on at a terrible rate, stating that he would get me ten thousand dollars for my fearful injuries.

I could not stop his steam. As we ap-

proached a crowd of people he called out to them: "Here's one of the boys who was in the telescoped car. See the blood coming from his mouth. He is bleeding to death internally."

The crowd gathered about me, but I broke and ran, got back to my car, and shut the doors. Mr. Attorney did not get my case and I never attempted to collect one cent from the railroad company, but kept right on at work.

Whether the lawyer thought I was internally hurt or not I cannot say, though I believe he had a right to think so, because excitement at times nauseates me, as it did on this occasion, and I was holding myself as if hurt. His flow of talk was so fast, however, that I could not stop him to explain this.

Expressman's Desperate Dive.

Three years ago, as we were pulling out of our terminal on the finest train that crosses from the Atlantic to the Pacific, my partner asked me how late we were leaving, and I replied: "Eight minutes, but our schedule is very fast and we have Louie in the cab with one of the fastest engines on the road. We will not be behind very long."

We were soon straining, trying to make our work keep pace with the tattoo Louie had notched his engine to. I took the time as we passed the blind siding, and I could see that we were picking up right along.

As we approached our first telegraph-station, fourteen miles out, we were fairly skipping away. Louie called for a clear board, called again and again, then shut down to stop. About that time the operator heard his call and cleared. Instantly Louie opened up full.

Just after passing the small depot ballast began to fly and our car to sway and jump. I was thrown into some iron racks and my left arm was pinned among them. My partner caught me tightly about the waist, and as the car turned, first to one side and then to the other, the weight of both of us was hanging by that one arm.

After tearing along for about three hundred feet we hit a water-tank on heavy iron girders, tearing two of them away. The force of the collision turned our car completely around and left it sitting flat upon the ground.

When I got loose it was found that the muscles in my back were strained and my arm badly wrenched.

The express messenger had a terrible experience—his car turned over in a deep lake, and in some way a large hole was knocked in the side. The trunks and express piled on and about him, pinning him down.

His foot happened to go through the hole into the water; he let the other through and found that he could pass his body down and under the car, so with a short dive and a few splashes he was on dry land. But such a sight!

He seemed to be bleeding all over and his back resembled a hacked beefsteak. We got him into our car, cut off what few remaining rags he had on and wrapped him in a blanket. We looked for the engine, but could not see it.

After a while, when Louie came up to the door with blood pouring from under his cap, we thought it was his ghost. He told us that the engine was fifty feet from the track, behind some willows, standing on her nose.

Several people had been killed in the negro coach and others badly hurt. The express-boy, Louie, the fireman, my partner, and myself were trying to take care of ourselves in the mail-car. While we were taking an inventory of our injuries, a large, fine-looking fellow stuck his head in the door and beheld a sight which he said resembled a slaughter-house. "Boys," he said, "if there is anything on earth I can do to relieve your sufferings speak quick."

I told him if we had a little whisky and some sheets, which he could get in the Pullman, I believed that we could manage until a relief-train reached us.

He went back into the Pullman, and at first they refused to let him have what he wished; but, I was told, he addressed his second request with such force, showing a face behind it that would not stand for hesitation, that it was but a few minutes until we had plenty of sheets and it seemed twenty bottles of about twenty different kinds of whisky. He demanded to know what it was all worth. "I won't let these boys sponge on any one, especially short guys like you."

The conductor, who had been detained rescuing the dead and wounded, came up, heard this remark, and assured him that it was all right; the railroad company would stand for nothing but the best for us boys, and the refusal to supply us with

He spit it out. "Sam, you old hoodoo, turn her up, I want a drink!" The seriousness of the situation could not restrain a laugh from the others.

The passengers came down our way, and a man and his wife approached. He

DELIVERED THEM INTO MY CAR WITH SUCH FORCE THAT HE BROKE MY LEG.

sheets had evidently been caused by excitement.

Our friend was certainly a prince of good fellows! He stayed with us, and saw that we had every attention possible.

He asked me if I were not a Texan, and I told him that he had given me the proper sign.

We never thought of giving the express-boy a drink, as he seemed too far gone, but he soon rolled up his eyes and asked to have his head raised a little, saying to me:

"Pass those bottles under my nose until I find the right one—that one, now turn it to my mouth." I barely tipped the bottle.

was pleading with her not to get excited. "My dear, do calm yourself, it is all right."

She was as cool as a refrigerator full of ice, but he was shaking as though he had the Louisiana "swamp ague," and was as white as a sheet. The cause of this wreck was never determined. I was in the "back shops" for repair about one month this time.

Within Ten Minutes of Safety.

At the time of writing this I am again in the "back shops." When the wreck which was responsible for this occurred, we were within ten minutes of our ter-

minal, clipping away at forty miles per hour. I had just remarked to one of my partners: "We will soon be home. Meet me in the park late this evening, and we'll have a talk over our pipes."

The words had scarcely left my lips when ballast began to fly, our car lunged, then pitched and rolled over. From the top of the car when standing on the track to the spot where it hit was thirty feet.

I was holding to the rods on the side from which the car was turning. When it hit it jerked my hold loose, throwing me with great force nine feet, and landing me upon iron racks and ribs of the car. A wheel of the tender had burst.

When the doctor marked on a skeleton the places where I was injured there were some twenty-two contusions from my foot to my head on the right side, back bruised, and three lumps on the muscles of the leg and arm, which still show, knee wrenched and still swollen.

I have been in the "shops" for eight weeks now, with two fine mechanics trying to get me on the track again and an occasional consultation from even higher authority. After all that I have been through my nerves are as steady to-day as they ever were, and if the doctors would tell me that it would not interfere with a permanent cure I should not mind the pain I at times still suffer, and would be right in the thick of the fight.

I am always happy when I can feel the wheels under me clipping along at fifty to sixty miles per hour, and hear our powerful steel horse as if breathing heavily in an attempt to win the race we are on. I am spurred on to fastest work when the engine settles down to a perfect tattoo and I feel the wheels under me clipping off a rhythmical accompaniment. I cannot leave the life, although I have had splendid offers to do so.

In conclusion, I would speak a word to those who are always ready to sue the railroad companies for damages. The men at the head of these companies are human. With all my mishaps I have never had to collect one cent from a railroad company through the courts, nor with the assistance of an attorney.

Whenever I am really hurt I go to them with a straightforward statement of the facts, and, in every case, receive a satisfactory and immediate settlement. Try it yourself next time and see.

PATENTS AND THEIR COST.

THE United States Patent Office issued last year 35,514 patents, reissued 168 patents, and registered 6,029 trade-marks, labels, and prints. During that time 22,328 patents expired. The expenses of the office for the year were $1,712,303, and the receipts $1,896,848. Last year's balance, together with that of former years, leaves to the credit of the office in the United States Treasury, $6,890,726. Special attention is now being given to the classification of the 915,000 United States' patents, to the 2,000,000 foreign patents, and to the 85,000 volumes in the library. When this work is accomplished, it is expected that the expense of examining applications will be reduced by one-third, and the character of the work improved.

The present method of operating the Patent Office imposes an unnecessary tax upon inventors for which there is no excuse. With all the surplus income derived from patentees the office is entirely inadequate for the business and its inconvenience has been complained of for years, but Congress has always turned a deaf ear to complaints.

In the course of its progress through the office, up to the issue and mailing of a patent, an application passes through the hands of fifty-two persons.

An applicant pays $15 to have his claim examined, and in case he is granted a patent, an additional fee of $20 is required.

Attorneys charge from $25 up, according to the work demanded by the cases, and as the applications number about 40,000 yearly, it will be seen that there is a good deal of money to be divided among the patent lawyers whose signs cover the faces of the buildings in the vicinity of the Patent Office.

An inventor is not required to employ an attorney, but probably ninety-nine out of a hundred do. In simple cases, where there is no interference with prior claims, an inventor can almost as well deal direct with the government, but in most cases the knowledge of the lawyer is valuable.

He can study other inventions in the same line, and knows how to make the claim broad enough to cover all that is new and valuable, and not so broad as to be rejected.

Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 7.—THERE ARE SEVERAL EARTHQUAKES.

Jim Finds That He Has "Made Good," So He Writes Pop the News, and the Old Man Comes Back with Something to Reduce a Swelled Dome.

JIM TO THE OLD MAN.

DEAR DAD: Talk about things happening! In the last week so many earthquakes have hit the office that we don't pay any attention any more to such small things as wrecks. But I say "we" when I shouldn't. That's earthquake No. 1.

I'm not in the general manager's office any more, dad. You couldn't guess in five thousand years what's happened. I'll relieve your suspense. I'm now chief clerk to the superintendent of the Baltimore division.

How's that? Going some, I guess. Isn't it great? I sign all the official mail in his name, with a big "Britt" underneath it.

Honestly, when I first started in I hated to stop signing the letters. It looked so nice to be able to give out instructions yourself, and sign besides. Great? Well, I should say yes. It's *fine!* I've been living on the hilltops for the last two weeks.

Earthquake No 2—T. F., Tom Fitzgerald—your Tom Fitzgerald—has quit the B. and D. That's some of an earthquake, isn't it? He had been with the road so long that it seemed as if something was wrong with it. The papers had a lot about it—mostly guesswork. The truth of the matter is this: The traffic vice-president and the general manager's office had been on the outs for a long while, because the v.-p.'s office wanted to run the general manager, who thought the operating end of the line was It.

Earthquake No. 3—I'm getting $125 a month now. Last salary was $90, by special arrangement—a clear increase of $35 a month.

But let me explain how it all happened. You remember I told you about having trouble with Grand, T. F.'s new secretary? It seems Grand got sore when they took him out of the president's office and sent him to T. F.

He didn't pay much attention to his work, and got himself pretty well disliked because he tried to boss everybody. Then, when you sent me those wires, and I was on the point of quitting on account of Grand, he had a scrap with T. F., sassed him all over the place, and ended by resigning.

They took in another man from the president's office. That made me hopping mad, because I was entitled to it by right. The new man was a good one. though. To fill his place in the president's office they shifted around the men, leaving a position of assistant chief clerk open, and promoted the superintendent's chief clerk. That left his place open.

Series began in December, 1909. Railroad Man's Magazine. Single copies, 10 cents.

On the very day that I was going to tell Connolly I intended to quit, T. F. called me in the office. Charlie Galloway, the superintendent, was with him. I had always liked Galloway, and we knew each other pretty well.

"That is the man," said T. F. Then he turned to me:

"Mr. Galloway has got a place open in his office as chief clerk, Britt. Would you like to take it?"

"Would I?" I stammered out something. I don't know what it was, for I was knocked silly.

"Well," said T. F., "you report to him Monday."

I shook hands with T. F. twice, and with Galloway three or four times—I am not sure which—before I finally located the door. Then I walked out, at peace with the world.

I couldn't do much the rest of the day, and Connolly understood how I felt, for he kept on smiling all the time. He was the one who had suggested my name to T. F., I afterward learned, and Galloway said I would do, as all he wanted was some one who would take the detail work off his shoulders and keep things running smoothly.

I had a hard time of it the first week. Worked till ten at night, but it didn't count, for I had some responsibility of my own at last.

I don't know where T. F. has gone. I hear he is running a little coal road in West Virginia, but wherever he goes I'll bet you he'll take my best wishes along with him. Never have I met a finer man for handling people than he. Never have I met a more courteous and big-hearted man.

But those who know him love him too much to be able to sing his praises—they can just jump the fellow who slings mud at him—and let it go at that.

I like my new work immensely. There's lots of it, and close to the rails, too. I'm beginning to get virtuously indignant now when the other offices ask us to explain delays to passenger and fast freights, particularly when I know that the majority of them are written by some sap-headed general manager's clerk or some one in the traffic department.

Those fellows don't know the difference between a box car and a cattle-car, and just want your explanation in order to file it away, regardless of whether it's good or bad.

I'm beginning to get the underground method of work, too; such a little thing, for instance, as losing correspondence that might be hard to answer satisfactorily. I've got a stenographer of my own. Don't laugh.

My one trouble is with the boys in the office. Naturally they didn't like to see an outsider put over their heads, and they don't object to showing their dislike a little bit.

I am trying to be patient, though, and hope the friction will wear away. If you've got any of that celebrated medicinal advice of yours handy—in capsule form—on handling this bunch, send it along.

Mr. Galloway is nice with me, and his secretary has put me straight once or twice, although I wouldn't admit it to him, for he would promptly tell the others should they ever begin criticizing me. You know how easy it is for some one to volunteer stuff like that when everybody is knocking.

But the real thing is that I've made good. You can't begin to know how good it feels to say that.

Be sure to tell mother all about it. If I write any more, I'll bust. Affectionately,

JIM.

THE OLD MAN TO JIM.

DEAR JIM: Of course I'm glad. I'm gladder than you are. When I told your mother that you had got there, she insisted on giving a party to which all of the town was invited, and nothing was talked about but "my boy Jim." But she's writing you a twenty-page letter tonight, so I don't need say any more for her.

Barring death, and about three thousand other things, you ought to have a pretty straight road before you now. The best way to get at the hearts of your bosses, Jim, is to save the road money. They always promote a money-saver.

The men up ahead have a sincere admiration for the man who can do things better at less cost. They watch the operating expenses like a hawk. Improve your department, and you'll never lack a

pull, for when you get down to the meat of it, pull doesn't amount to a bag of candy unless it's got merit behind it.

Good executive ability—the ability to run an office well, and keep the men working just for the love of it—that, and keeping expenses down, will make a man head of the road in no time. And a man with executive ability has got to have tact and diplomacy.

While we're talking about diplomacy, let me tell you about Henry Powers. Hen, when I first met him, was office-boy in the superintendent's office. Hen was a red-headed, freckle-faced kid of about fourteen, with a grin that used to spread from the end of one ear to the other; and on special occasions the corners used to meet at the back of his head.

No matter how much the whole office felt like jumping in the river, Henry was always there with his little smile. It was born of good digestion and a miraculous appetite. If you spoke to him it grew a little, and if you cussed him it became a yard wide.

You couldn't persuade him you meant it. He'd try to convince you you were joking; and if you insisted you weren't, he'd make you believe you were mistaken. And the way he could make the other office-boys hustle around was a caution.

He was a confidential kid, too; lean over your desk and tell you things with an air of great secrecy, and call you mister just when you were longing for somebody with appreciation enough to stick a title before your name instead of saying: "Here, you!"

Ask him to go off on an errand just when he came off a hard trip, and his "Yes, sir," would come back at you as cheerfully as if it was a fishing excursion, and you were paying for the tickets and bought the bait.

But you couldn't impose on him. No, siree! I remember one day I came in the office when Seebald, the stenographer, was trying to make him go out and buy some cigarettes. When I say cigarettes, you'll know Seebald.

I came in the door just when Hen was using his brand of diplomacy. Seebald was blue in the face, and shaking an arm, that looked like a pipe-stem, under Hen's nose.

"No, sir," grinned Hen, "I ain't going to get no cigarettes. I ain't got time. But I tell you what I'll do—I'll ask the boss to let me get 'em for you."

Before Seebald could stop him Hen was inside the superintendent's office, explaining that the stenographer wanted him to buy some cigarettes, and would Mr. Martin mind letting him go?

He wasn't very busy, as he only had about two hundred letters to fix up for mailing and about forty to deliver around the building, besides sorting the correspondence and attending to his regular work.

Before he was half-way through, Martin was standing in the outside office reading the law to Seebald, while Hen was standing in the doorway, with an innocent expression on his face, as if he couldn't see why his friend Seebald should get called down. And Hen took particular pains to explain to Seebald that it was an outrage, and he'd get 'em anyhow, if he said so. The kid was young, and used science against brute strength.

Hen speedily got popular on account of his cheerfulness. He was naturally bright, too, and picked up a lot of office-work. One day, the general superintendent telephoned down to Martin about something that had gone wrong; I think it was an important letter sent astray.

Martin and the chief clerk put Hen over the coals. Finally they had him pinned down, good and hard. At every harsh question they put he would answer and give one of those cordial grins—and under the influence of those grins, things didn't look half so serious as when they first started.

Martin had to relieve his feelings somehow, though; so he began to cuss Hen, doing him up artistically. And Hen just stood there, taking it all in, and smiling back at Martin for all the world as if he was saying, in the most respectful kind of a way:

"That's all right, Mr. Martin; you're too fine a man to mean all that. I know you better than that, no matter what you say," until Martin gave in.

He turned to his chief clerk and heaved a sigh.

"It's useless to talk to that little runt," he said. "Everything I say, he just stands there and grins as if he likes it." He wheeled suddenly on Henry.

"Get out of here!" he bellowed. And Henry got.

Outside, Henry was explaining to his admirers.

"Didn't he fire you?" he was asked.

"Fire me!" grinned Henry derisively. "Not on your life! He's going to raise my salary five dollars."

Do you know where that red-head is now? Your remark about T. F. losing out in the fight with the traffic vice-president brought it all back to me. That kid worked his way up in the road, and to-day is now one of the smoothest and most diplomatic traffic men in the United States.

He's the same traffic vice-president with whom T. F. had the fight. There isn't a man in traffic circles in the country who doesn't know him; for he's as popular there and in the big business world as T. F. is in the operating department. You can tell him a mile off by his smile.

The way to handle men, Jim, is to leave them alone. Every man alive has his own little particular way of looking at his work. Men who fill big positions have got to be different to the ordinary man. They must forget that they ever had feelings. They mustn't get excited, and they can't afford to lose their tempers. The men working for the boss look on him as different.

In a well-organized business, the boss is really a kind of father, with his employees as the family. They look to him in time of trouble, and if he's a big man, they soon lean on him.

When he must call a man down, he does it quickly, and forgets about it.

The man who realizes that he must forget his own feelings, no matter how low down on the ladder he is, will hold the boss's job some day. He's just the kind of a man the world wants to run its business. He doesn't need stand on the house-top and yell to the fellow on the street that he is the real goods. His actions will yell for him louder, and carry farther than ever he can.

Forget yourself. Say that over a dozen times a day, Jim, and you'll be the man for the place.

It's a wise man who knows he isn't out of short trousers yet.

It's one eternal fight to keep the other kids from making you forget you're a kid, too.

Face the music, smile, and be honest; if you do those things, you'll have the satisfaction of knowing you've won.

Your affectionate. FATHER.

(The End.)

NOVEL SCHEME ON THE ERIE.

THE Erie Railroad has given over one car in some of its suburban trains to the commuters, who object to the steam heat and stuffy atmosphere of the regular cars. The cars carry signs reading, "Fresh Air," and are started out from the terminals with the doors, ventilators, and alternate side windows wide open. Any person riding in these cars is privileged to close the window next to him, but has no right to insist on the closure of other ventilation openings. The will of the majority of those who ride in the cars will control the turning on of the steam-heat, which may be wanted in very cold weather. Those who find the cars too cold can always move to other cars in the trains.

This is a novel, but sensible, way of solving the vexatious problem of heating and ventilating cars in winter.

UPSETTING OLD BAGGAGE THEORY.

A CASE of interest to railroads as well as travelers, has been decided in Philadelphia, the jury rendering a verdict against the Pennsylvania for the full value of baggage lost in a 10-cent package-room at one of its stations in New York. The company contended the package-rooms were maintained for the accommodation of passengers only, and the small cost charged did not impose upon it any obligation beyond ten dollars.

The judge said the company had assumed the safe-keeping of the baggage, and he therefore permitted the case to go to the jury, which rendered a verdict of $254.25. The company will appeal.

MOVING THE "MOVERS."

BY J. L. JAMES.

The Trials and Tribulations Encountered While Waiting for "The Great Unlimited."

I WAS sitting in the stuffy little depot of a prairie town. A "norther" was prowling around outside, and whistling mournfully about the eaves. A lone drummer, two or three farmers, and myself, were waiting for the local going west, a swaying combination of one rickety passenger-coach, any number of freight-cars, and a sputtering little hog-back engine.

The train made daily trips, but on its return each afternoon, or midnight, became No. 3 instead of No. 1—its westbound cognomen.

The road boasted of another train, subject, also, to daily change of numbers—No. 2 and No. 4—a real passenger-train, due late in the afternoon, and likely to arrive at any time thereafter.

On this particular morning, No. 1, known by the boys as "The Great Unlimited," was also late. No one was surprised. The drummer, who had worked the whole town since breakfast, and had then defeated all the local checker champions, was trying to kill time by dozing in a corner, or slapping at some stray fly.

I had kept awake watching his antics for a while, then discovered a dirt-dauber's nest on a horseshoe over a door, and for an hour or so divided time between wondering how that individual discovered that a horseshoe brought good luck, and listening to the progress of a domino game in the office, between the agent and the only drayman in town.

Suddenly the outer door opened with a crash. A man, a woman, and several children entered, showing by all signs in sight or hearing that they were emigrants, or, as locally termed, "movers."

The woman was carrying, in one hand, an old umbrella, a frying-pan, and a bird-cage with a half-grown rabbit in it. In the other hand she had a hat-box. Under one arm was a square, box-like old clock, and from her wrist hung a bag that bulged with a conglomeration of articles.

Behind the woman came a girl of, perhaps, eight years, carrying another clock of different shape, and an anxious-looking gray cat that seemed to have its attention divided between fear of falling and the desire to eat the rabbit.

The man carried nothing but a big, fat, bawling baby of two years, wrapped up in a red and green blanket. Other children followed, some carrying various articles, some crying, others eating peanuts.

The children all came into the depot readily enough, but seemed to have no further idea what was expected of them, and stood gazing at the lurid posters, maps, and excursion notices, or stumbled over seats and suit-cases.

"Now, set down!" commanded the mother, "and don't stand around gapin' like a lot o' eegiots!"

The youthful "movers" broke ranks, some to clamber into seats, others to go on a tour of inspection of everything within range. The mother pushed one clock under a seat, found a lamp-bracket for the bird-cage, and sat down with the baby and the other clock in her lap, having deposited the bag on the seat beside her.

Then the clock under the seat began to strike lustily. As it finished the thirty-seventh stroke, the alarm in the clock in her lap went off with such a bang that the baby took fright, and fell off its

mother's lap onto the floor with fresh yells of terror.

I stole a look over the top of my magazine, behind which I had been trying to screen myself, and vainly tried to catch the drummer's eye, but he was gazing out of the window, pinching himself to keep from disturbing the peace.

The baby, in falling, landed somewhere near the middle of the catch-all bag, and the mother made a plunge for it as if the child were on fire. Then the clock in her lap began striking some unknown hour.

"Now, Elviry," she shrieked, "there you've went and done it! I bet you broke yo' paw's mushtash-cup 'at he got at the Christmas tree last year."

The proud owner of the mustache-cup was standing by the ticket-window, vaguely wondering when the "depot-man" would catch up with his business sufficiently to sell a ticket. But that person was just then in the act of defeating the drayman at dominoes.

Rather than lose the victory, he would have played on obliviously till No. 1 came over the hill, had not affairs in the waiting-room taken another turn.

The guardian of the household effects had just rearranged the baby, the bag, and the clock, when her wandering gaze missed her first-born, a shock-headed boy who had not remained in the waiting-room long after the arrival of the family.

The baby was at once deposited upon the floor, where it bellowed wrathfully. The panic-stricken woman sped for the door, jerked it open and set up a shrill:

"Bus-s-ter! *Y'ou* B-u-s-t-e-r! Buster-r-r-r!" winding up with an ear-splitting whoop.

The wind made straight in at the door for the papers on the agent's neglected desk. The freight-bills flew over the office and disturbed the checker game long enough for the agent to interfere with the remark: "Here, I'll bust you!"

Then, as he leaned out of the ticket-window far enough to see that the offender was a woman, his chivalry got the better of him, and he toned down a bit, saying: "Madam, if you don't shut that door, I won't have a paper in the house, and they will be suing me for scaring all the horses out of town or chokin' up the Brazos River."

The woman yelled on obliviously for some time, then, muttering, "I bet he gets left by that train," closed the door, and started up the platform in search of the prodigal.

Things were getting so interesting that the drummer passed me the wink and slunk out of the other door. I followed.

"You go one way," said he, "and I'll go the other."

We wanted to see the old hen when she lit, and we did. Out at the farther end of the platform, we turned opposite corners just as she sailed down on her runaway.

He had a cotton-hoe by the handle, and to its neck, with a card two yards long, he had tied a flop-eared, half-breed dog. He was sitting on the platform holding the hoe-handle and dog in fishing style, as if he had a bite.

"Buster!" yelled the approaching assailant. "Wha' chu mean runnin' off an' the train about to start?"

"Why, maw," drawled the boy, "the train ain't come yet, and paw made me leave old Tige out here, while we went to the depot, an' he's cold."

"Well, I guess you'll warm him up holdin' him here by the handle! I'll kill that fool dog!" she stormed, but aimed a blow at the boy's head. He dodged readily and still clung to the hoe-handle, while the whining dog huddled against the platform with his tail safely between his legs.

Just then the hog-back squealed in the distance, and the warlike mother set off to gather her belongings preparatory to boarding the train.

She took down the bird-cage, got an arm about one clock, seized the umbrella and bag again, gave vociferous commands to the children to "git them things and git on that train," and marshaled them in a long line by the track while No. 1 came clattering in.

Most of the passengers were in no hurry to get aboard, as No. 1 usually stopped an hour or two—long enough for a drummer to "work" the town and catch the same train for the next.

But to-day, those aboard had been there so long they were anxious to get off, and soon the family phalanx was broken up by the crowd. After the drum-

mer and I had secured seats, we looked out and saw the woman, with the clock and caged rabbit, racing up and down the platform, calling at every jump: "Jerri-mi-a-aah-hh!"

As this was a new name, we soon figured that the husband had escaped while she had been looking for the missing Buster. The drayman emerged, and out of pure good-will began to call Jeremiah also. Several boys took up the cry, till the town rang with the chorus of shouts for that namesake of the weeping prophet.

Finally, the woman collected her children, clocks, rabbit, etc., in a knot near the train, and gave out in stentorian tones that she would "stay right there till the cows or Jerry came home."

"I'm betting on the cows in that race," remarked the drummer, and then he settled for an hour's doze before the train started.

After a while we were all awakened by a jerk of the train and the renewed cries of the moving woman, who seemed to think the cows were about to win.

Jeremiah had not yet appeared, and the engine had finished its switching work and backed up to get the train for another start.

Several of the children added to the hubbub with their frantic yells for father, and just as the bell began ringing for the departure of No. 1, the missing hero came around the corner of the depot scowling furiously at the uproarious family.

"Can't a feller git away long enough to have a smoke in peace?" he growled, referring to the two-for-a-nickel cigar protruding from his overgrown beard. He went into the depot again for the tickets, but the snorting little hog-back began grunting off down the track, leaving the moving-woman the picture of wrath and despair as she clung to her clocks and rabbit, groaning:

"I knowed it! I knowed it! I knowed he'd git left!"

A new disturbance at the rear of the train now attracted our attention. On investigation, we found Buster, the dog and the hoe, mixed up in a row with the brakeman. The boy and the dog had slipped on to the rear of the train, while others of the family were calling Jerry.

"I tell you, bub," declared the brakeman, "you can't bring that pup on this car!"

"Well, he's on here, ain't he?" retorted Buster.

"Well, take him to the baggage-car and express him through! He can't stay on this car! Where's your ticket?"

"Paw's got it, I reckon."

"Where is he? Hunt him up, quick!"

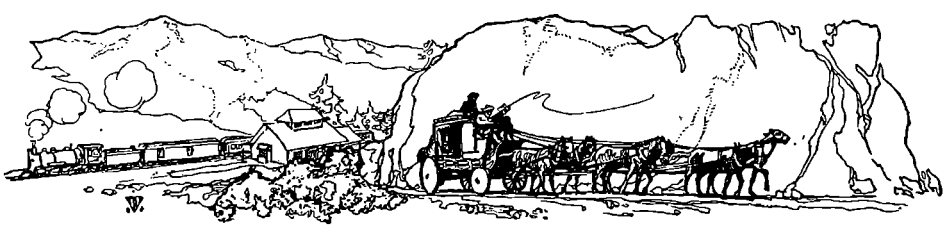
The boy tried to leave the dog in the corner by the stove while he went to show the brakeman the holder of the ticket, but the trick failed. The dog followed, and, when assaulted by the brakeman, started howling down the aisle with the hoe catching in the seats and hitting the passengers.

Boy and brakeman tried to stop the fugitive. They caught him at the door just as a passenger who had been out on the platform started to enter and had dodged back in time to let the dog out. The hoe caught in the door.

Just then the train lurched into a stop at the water-tank. Dog, boy, brakeman, and passenger finally untangled themselves, and Buster, still holding to the hoe-handle, remarked, "I guess my paw ain't on here."

"Well, I guess not," snorted the brakeman, rubbing his shins, "and, bub, next time you try to take a ride, bring your dad along, instead of that pup, and get a ticket, too."

"Huh," replied Buster, as he alighted with his dog and took up his march back to town, "I beat my paw this time. Must think I never have moved before!"



HELP FOR MEN WHO HELP THEMSELVES—NUMBER 32.

(The Rogers Group. No. 3.)

THE ROUNDHOUSE FOREMAN.

BY ROBERT H. ROGERS.

WHEN one reviews the work of the roundhouse foreman, its minute details, and its broad responsibilities, it seems impossible that one human being can attend to all these multifarious matters and retain his reason. The roundhouse foreman is the man who does not figure heroically in popular fiction. He is not supposed to have an eagle eye or any of the equipments of a hero, but if his eye makes a small mistake in estimating the extent of repairs necessary, the end may well be appalling disaster.

There is no instance where a roundhouse foreman has made such a mistake, and there are hundreds of opportunities almost every day. Mr. Rogers shows that the large responsibilities that some of our great chiefs of motive power are called upon to bear have been prepared for in the hardest school of training that lies in the path of any railroad position.

What the Begrimed and Worried-Looking Man About the Roundhouse Is, the Load He Carries, and the Reward He Hopes to Gain.

DISREGARDING, for the sake of this illustration, and with no disrespect, the large administrative ability properly conceded to every division superintendent, the all-important duties of the division engineer, and the undoubted skill and energy of the far-seeing master mechanic—do you know that there still remains obscured by all these a lesser official, unidentified with romance and removed from the spotlight of popular appreciation, about whom, nevertheless, revolves the actual movement of each division on a great railroad?

Does it not seem incompatible, in the methods of up-to-date railroading, that if this one-hundred-dollar boss should suddenly drop out, an organization supposedly competent to cope with any emergency would, for a time at least, become hopelessly complicated? If these statements are not too broad, and they are in reality conservative, he deserves a place in certainly not the least interesting chapter in the story of the motive-power department.

Began in the April Railroad Man's Magazine. Single copies, 10 cents.

It was concerning the importance to the supervision of this particular member that E. T. White, mechanical superintendent of the Baltimore and Ohio, once remarked to the writer:

"It is easier for me to select seven good men for the position of master mechanic, whom I know will make good, than to land one good roundhouse foreman."

Incumbents of these big jobs do not speak inadvisedly, and not in this instance at all events, because White has made, or named, many roundhouse foremen, and many master mechanics. Probably he has been the good Samaritan to more aspiring young men than any other man in high official position, and he ought to know.

There is no grade in railroad service calling for more detail knowledge of a locomotive, and how and when to apply it, than a roundhouse foreman must possess. Under all circumstances he has to be patient, cheerful, self-reliant, optimistic, and resourceful, to have even a remote chance of success; and, above all, his shoulders must be broad enough to carry everybody's burdens, whether representatives of the shop or road.

His job is the buffer between the shopmen and the master mechanic, and between the engineers and firemen and the road foreman of engines. He is master of the situation, in a way; and, in another way, it masters him, as, in the large terminal, the wealth of detail which confronts him is staggering.

The Man of Details.

The superintendent, division engineer, and master mechanic are charged with bringing about broad results on their division. They are largely removed from vexatious and wearisome small matters, but the roundhouse foreman stands alone on the firing-line, next to the very heart of things.

It is to him that they flock when the turntable breaks down; when the last of the inch-nuts are disbursed by the storekeeper, or when a headlight chimney is wanted for engine 1075; and, while these problems are being intuitively disposed of, the shop water-line will give out, with two or three locomotives attached to it, whose boilers need to be washed before quitting time. There is also a probability that the engine despatcher will appear, and breathlessly demand another engine to replace one which is in trouble at the depot, and which its engineer has impolitely and emphatically "turned in" over the phone.

These are merely incidents of the daily routine. The writer has confronted them all, in the short space of fifteen minutes, and with the cheering intimation, to boot, that the coal-shed was on fire. A fellow comes to look for the unexpected in this stirring job; to enjoy it, almost, and he is out of place if he doesn't have a prompt remedy up his sleeve.

It is the conceded receiving end for trouble, and George Reynolds, for a long time boss of the Connellsville roundhouse, put it truthfully when he said:

"Anybody I see walking toward me, I don't care who it is—fireman, engineer, boilermaker, despatcher, call-boy, or the 'old man'—I know it is trouble coming, in some form or other."

Faults Must be Reported.

It is not the fault of the conscientious machinist if his emery becomes used up in the middle of a job, and no grit can be scraped together with which to finish grinding the steam-pipe joints; nor is it against the fireman if the harassed tool-boy can't find a scoop for him. Their idea, and a proper one, too, is to report these things as soon as they happen, thus relieving their own responsibility, because, if delay should result therefrom to job or train, the first question asked by the master mechanic would be: "Did you say anything to anybody about this?"

There is no one to say it to but the foreman, so they wait complacently and, it must be said, often with a cheerful grin, while he indicates a way out. The foreman may dig for one of his own dimes, and chase an apprentice to a hardware-store down the street for ten cents' worth of emery, and he may tell the fireman to take a shovel from some other engine in the house which is going to lay over for a while. At all events, he will do something, and the situation will clear.

The old man won't know anything about these trivialities, either. No foreman, especially one of the old school, would ever be guilty of continually run-

ning to the master mechanic with his troubles. If he did start to run, the master mechanic would view it unkindly.

He had to dig his own way out, when in a similar job; and, unless animated on exceptional lines, he would not care to run the roundhouse as well as the various personal duties pertaining to his position, which in itself is far from being a sinecure.

The writer was roundhouse foreman under J. B. Michael, at Knoxville, Tennessee, on the Southern Railway, for about a year, and only three times in twelve months he climbed the steps of the master mechanic's office, unless he had been sent for. It is much more pleasant all around to handle the job without interference, and "J. B. M.," with his long experience, was sufficiently broad gage to concede this—provided, of course, that the looked-for results were forthcoming.

Too Small for His Job.

Other reminiscences, however, are not so pleasantly recalled—one, in particular, where the master mechanic lived in the roundhouse. He was an extreme enthusiast, but to no purpose.

He threw away valuable time, in pushing the turntable, throwing switches in the shop-yard, and even in hoeing ash-pans on the pit, without mentioning the excitement occasioned in the force through enforced proximity with such authority, when he might have been much more profitably employed for the benefit of all concerned by being up-stairs writing his letters or devising ways and means.

He lacked the implicit confidence in his foremen, and they in him, which is the keystone of efficient shop organization. He was the self-tortured victim of countless fears; afraid that the engines would not get over town in time for their trains; afraid that the jobs reported by the engineers were slighted in the roundhouse by the foreman; that the engineers were carrying tales to the superintendent, and of numerous other groundless bugbears detrimental to his peace of mind.

This is far, however, from being a general condition—the reverse, rather. If the master mechanic does not of his own volition give his foreman latitude and support, he may be quietly reminded by the progressive head of his department that the policy is to have it so. This policy is to put the job squarely up to the incumbent, and to let him alone; waiving, of course, the general supervision which through the master mechanic must be extended over all departments. If he fails to make good, the painful necessity arises to get another foreman, but the change can be made without the recriminations which might follow divided responsibility.

The Added Care.

The work of a roundhouse foreman has little in keeping with that of a machinist, although from this latter grade all such foremen are produced. The principal difference is that before promotion he simply worked and knocked off by the whistle, chalked his two dollars and a half or three and a half, as the case might be, on the proper side of the ledger, and forgot his job until the next morning, but when he assumed his present burden this enviable mental condition sped on its way forevermore.

The first day of promotion brings responsibility which will never cease to be his portion. Through this, and all the succeeding grades, he will work mentally, if not physically, day and night, Sundays and holidays, until the company fails to remit his monthly pay-check.

The problem presented in taking care of maybe one hundred locomotives in twenty-four hours may be truly defined as tremendous; and this number, while large, is still far from the total which some terminals handle in that time. The Boston roundhouse of the New York, New Haven and Hartford has, or did have when the writer was master mechanic there, upward of two hundred and twenty-five passenger engines daily over its ash-pits.

Cumberland, Maryland, on the Baltimore and Ohio, before relief was afforded by diverting a percentage of the number to Keyser, West Virginia, had one hundred and twenty-five, representing the heaviest freight power in the country at that time; and the joint roundhouse, maintained by the Chicago and Western Indiana, at Fifty-First Street, Chicago, takes care of the passenger loco-

motives of five roads entering the Dearborn Street Station.

In connection with every one of these engines there is certain daily routine work, entirely independent of what the engineer or shop inspector may report. The fire must be thoroughly cleaned on arrival. or knocked out, if the flues or fire-box display any leaks; the ash-pan hoppers must be emptied, the sand-box replenished, the tender-tank filled with water, and the engine coaled.

The Engine's Toilet.

After receiving this attention on the pit the locomotive enters the roundhouse, where the tender-boxes are oiled, and the engine truck-boxes packed or resaturated —"sponged up," they term it. An inspection is also made of the smoke-box interior, particularly the spark-arrester, to ascertain if the netting is clean, and without holes, which might result in fires along the road from large sparks, and all details of the running gear and the air-brake are looked over by experienced men for loose parts or incipient defects.

Before being O.K.'d on the engine dispatchers board as ready, the flues must be cleaned, either by an augur or blown by compressed air, and both engine and tender thoroughly wiped, for the sake of appearance and to prevent possible injury to the bearings through contact with an accumulation of dirt and grit.

Last but not least. the tool equipment carried by the locomotive is carefully checked to see that nothing has been lost by the crew on the trip last completed. The headlight and signal-lamps are cleaned and refilled, and the allotted supply of oil and waste placed in the proper boxes.

All of this work, being merely routine procedure, is attended to by the same men every day, who work without direct instruction from the foreman, and from whom only supervision is required to know that none of it is slighted. The following may be regarded as representative of the rates per hour, in cents, which these miscellaneous roundhouse men receive.

Ash-pit foreman, 25c.; fire-cleaners, 15c.; ash-pit cleaners, 15c.; hostler, 25c. —and if engineer hostler, road rates per day; turntable man, 18c.; box-packer, 16c.; front-end inspector, 16c.; engine inspector, 20c. or 25c., and sometimes machinist's pay; tank inspector and repairer, 18c.; shop laborers, 12½c.; wipers, 12½c., or piece-work; tool-boy or supply-man, 12½c. to 15c.; fire-builder, 16c.; engine-watcher, 16c.; and call-boy, 15c. These rates, as a rule, imply twelve hours per day, but the organization in some shops might call for ten hours.

These men are provided with books made up of standard forms covering the details of their inspection and the repairs which the inspection indicated as necessary. When complete the books are filed as records, and for use as evidence should a lawsuit involve the company incidental to the failure of poor condition of the parts.

In addition to these routine men, a roundhouse, taking care of one hundred engines, will likely have twenty machinists, each with his helper, for the running repair work, that reported by the engineer or the inspector; ten boilermakers, for leaky flues and repairs to grates and ash-pans; two or three pipe-fitters, to look after the innumerable leaks in the joints of air and steam lines arising from the vibration of the machine and the jar of high speed; and a boiler-washer's gang, the time of which is fully occupied in washing each one of these engines at least once in thirty days, or as the State law dictates.

Emergency Work.

As it is impossible to foresee just what conditions will be in evidence on an incoming engine, great executive ability is required on the part of the foreman in order that these men may be distributed to the best advantage. He must continually adjust his unvarying force of machinists, boilermakers, and what not, to ever-varying conditions, and the solution of some of them has the riddle of the sphinx outdone.

These big locomotives over which he maintains unceasing vigil are contrary, whimsical even to a degree. You can never speculate with any certainty on just what vagary will be next in evidence. Any unlooked-for trouble which breaks out generally runs in "threes."

There will be three sets of steam-pipes to grind, three pairs of wheels to drop, and three of the hardest driving springs to renew. This three is a popular superstition of the roundhouse, but it seems, curiously enough, to be borne out in fact.

The Feminine Flier.

Occasionally an engine which has been receiving the best of care, necessary through its assignment to a fast train, and which has been a model of decorum for many weeks, will have a main rod brass "fly up," red hot, without the slightest warning, resulting in twenty minutes' delay and an avalanche of correspondence from the powers that be, demanding that a cause for the unseemly occurrence be assigned forthwith.

Such letters pass from the superintendent of motive-power to the master mechanic, and thence logically find their destination, for the outgoing trip, in the smoky little office of the roundhouse foreman. It is often quite difficult for him to say truthfully what caused the brass to heat, and the engineer, with whom he takes the matter up, doesn't know either.

It is a perplexing problem, as a convincing cause must be given for each and every engine failure, and often the foreman wanders for a long time in vain speculation, and in the face of demands, daily more insistent, for the prompt return of "all papers," before an explanation can be found which past experience tells him will prove satisfying.

Another engine, heretofore regarded as more than normally faithful, will suddenly develop a most inexplicable and mysterious "blow." The engineer will report what his judgment leads him to believe as the true cause—cylinder packing, possibly—and the foreman will accordingly have some machinist pull the pistons, only to find that the packing is O.K. The next trip the steam-chest covers will come up, and with the same negative result. They might even renew the packing, or balance strip springs, on general principles; but often the blow obstinately remains until the engine goes through the back shop, unless some machinist finds and corrects it by accident.

There is a vast amount of time and labor wasted in every roundhouse in the country in finding things; defects which, although unquestionably in evidence through the poor performance of the engine, are either not intelligently reported or cannot be readily located. Locomotives at one time, and not very long ago, were simple; and when something went wrong, there was little doubt regarding the particular part which required attention. Now the complications are such that they have, if it must be said, grown beyond their operators on the road and their attendants in the shops.

It is really not fair to ask, in the face of the exacting demand on every faculty to get a four-cylinder, or a balanced, to say nothing of an articulated, compound weighing two hundred tons, successfully over the road, that an engineer be such a master of its intricacies as to be able to set down, in the narrow confines of a work-slip, just which one of its multitudinous steam-chests or cylinders harbors a blow. The roundhouse foreman is fortunate, in fact, if the engineer can confine the trouble to one side of the engine, or to one set of engines which are embodied in the grand ensemble.

This is true, notwithstanding the fact that the locomotive engineer of this generation is vastly more progressive in his calling than was his prototype of only a decade or so. Those famous and exploited runners of the past would stand appalled, to say the least, at what their successors have to contend with to-day.

So, in the absence of the proper report, the trouble must be patiently and intelligently sought for. It ties up a lot of machinists whose time is urgently needed where trouble is known to be, and sometimes results in the big engine being half torn apart before the defect is chanced upon.

Unavoidable Waste.

There was an instance illustrative of this on the New Haven once, in the Boston roundhouse, when, on account of not knowing just where to look, both low-pressure pistons and both valves were removed, only to find the trouble at last in broken packing rings on one of the small and easily handled high-pressure pistons, which could have been removed and replaced in less than two hours.

The trouble in this case, however, was that the supervision, although in other regards adequate and competent, was deficient in compound engine experience. Knowing where to look, however, is a great qualification for a foreman.

Rapid fire good judgment is exercised every day, and in a degree which would be amazing to even experienced railroad men if they could be brought in sufficiently close contact with the situation in the roundhouse to appreciate it. It is safe to assert that the hard-worked foreman is asked at least one hundred knotty mechanical questions every day, and many more of lesser import by the unskilled labor.

The former will range from: "There is a crack in one-half of these brasses I am filing; do you want to put a new brass in?" to "Take a look at the right back wheel on the 1068 when you get around that way, and see if you think it is loose. There is some grease working around the axle at the wheel-fit," and, maybe: "Do you think this tire is working? It looks that way to me." They are mean questions, too; nerve-racking because the responsibility which the decision implies is great.

Even if absolutely no occasion for alarm exists, they are things which a foreman takes home with him. Through the long night they intrude upon his well-earned rest, and speculation, which cannot be dismissed, is rife on whether anything has gone wrong in the now mad race with time on which they have embarked since he left the roundhouse, and he feels much better to see them roll safely in during the next forenoon.

Shaffer's Forebodings.

One midnight, and of undue frigidity for even a winter night, in Chicago Junction, Ohio, Day Foreman Shaffer was encountered wandering aimlessly, heart-broken almost, up and down the principal street of the little railroad town.

"What's the matter, George—lost your switch-key, book of rules, or your job?" was the natural query.

"No, not yet: but I feel pretty bad. They just called for the wrecker on account of the 3708 in the ditch at the east end of Gallaghersville."

"Well, what of it? You didn't put her there, did you?"

"I'm afraid so," was the almost tearful reply; "in fact, I am sure of it. Don't you remember, this morning, you showed me two spokes cracked in her right main driver? I didn't think it amounted to anything, and let her take her run. Now she has stripped that wheel and finished herself, and it is up to me."

Just then the call-boy came, running. "Hey, boss! Mr. Shaffer!" he yelled. "The 3708 just side-wiped a freight at Gallaghersville, which wasn't in to clear, and she is down the bank. Who'll I call for the wrecker—anybody I can get?"

Relieved Over a Wreck.

"Side-wiped a freight!" repeated old George in joyful cadence. "So it's a run in, is it? Thank God! That's all I've got to say." And he actually essayed a few steps of a snowy break-down of startling effect in the pale moonlight, while the call-boy vanished in ill-concealed alarm in the direction of the bunk-house. It was the first time he ever saw a boss evince satisfaction, to say nothing of a joy-step, through enthusiasm over the woful tidings of disaster; but he might have understood if he knew the relief his words afforded to Foreman Shaffer.

To know what will run and what will not or should not run, and to decide promptly when the troublesome question arises, can only come from long experience; but no matter how momentous the problem, the judgment exhibited is always sound. There is no record, at least within the ken of the writer, in which an error of judgment on the part of the roundhouse foreman became the cause of wreck or accident.

Of course, intimate knowledge of minor existing defects, as in the instance of Mr. Shaffer, is disquieting when the call comes for the wrecker; and when no information is at hand concerning the true cause, the conscientious foreman mentally reverts to the only adverse condition of which he has any knowledge, and for the time at least may blame this for the accident.

No chances are taken, anyhow, in let-

ting parts run when in a dangerous condition, or even when in a condition liable to result in failure, although many, even including engineers, will occasionally insist otherwise. It cannot be denied that any roundhouse can exhibit an engine with one or two broken wheel-spokes, and maybe with a driving center cracked and banded; another may have a main pin with a vague indication of loosening in the wheel, and still another a fracture in one of the frames.

This does not mean that these parts are unsafe, or that a chance is being taken in letting them run, because there is a very large percentage of strength in their original design over what is actually required to stand the work which they have to do. When these defects do appear in what are regarded as the permanent parts: frames, driving-wheel centers or cylinders — and the rigid inspection of the present-day insures that the discovery cannot be long delayed—it is simply regarded as a warning to be vigilant, and, if the defect develops or extends in succeeding trips, the engine is taken out of service until the part has been renewed.

Imperative Repairs.

Not by any means, however, can all parts be safely temporized with in the instance of defects. When a flaw appears in a cross-head, main or side rod, or a piston-rod — in fact, in any of the so-called reciprocating parts—a tyro in the business knows that the locomotive cannot turn another wheel until it is repaired, and if the unlikely procedure were attempted to put it on the road, the engineer wouldn't take it. There is a double check all round, and the situation predominates tremendously in favor of its being returned to service in better condition than it reached the roundhouse.

In addition to the actual work at hand, which is plentiful beyond the dreams of avarice, a singular feature of the roundhouse foreman's duties is the diplomatic handling of imaginary ailments; imaginary, although assigned in all honesty of intent by the engineer.

A foreman must be popular, and he must retain popularity. He is in what might be termed closer "frictional" contact with more powerful labor organizations than any other person in railroad service. On an organized road, and the majority of them are organized, he handles directly or indirectly men affiliated with the International Association of Machinists, the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, and others of scarcely less importance.

Must Be a Diplomatist.

These powerful organizations have secured signed agreements by both parties with the railroads. In the instance of the machinists, these agreements are framed in the roundhouses and shops, and in that of the others they are printed and bound in book form for ready pocket reference.

It is intended by the company, whose proper official has signed them, that they shall be observed to the letter. Unless the foreman knows their every item by heart, and exhibits the necessary tact at all times to properly interpret the various clauses therein, he might work unconsciously, although none the less effectively, toward his own downfall.

Sometimes a man's native mechanical ability is jarred by a weird conception of requirements for the betterment of a job, gravely advocated by some sincere but mistaken engineer. In such cases there is only one thing to do—keep the peace, and listen without comment, as all good roundhouse-foremen know how to do. He must know how to humor whims, and he must be careful not to antagonize any one.

There was a man named Brown, who years ago ran a passenger-engine out of the Riverside roundhouse of the Baltimore and Ohio, in Baltimore, Maryland. He insisted that the insertion of a thin piece of sheet gum between the block in the foot of each spring-hanger and the frame improved the riding of his engine, 804, at least seventy-five per cent. The proposition was absurd, but, as it was a small job, and Brown a bit of a fire-eater, in the interest of harmony they put them in.

Some Fatuous Freaks.

Old Pete Yeager, another veteran of that locality, had much trouble for steam one season, and after the usual

remedies had been suggested and applied without avail, he contended that a piece of gas-pipe, wedged across the inside of the stack at the bottom, would restore the 846 to her own in the way of fog. About all the device really served was to split the smoke; but imagination and faith did the rest. At all events, the 846 crossed to the right side of the performance-sheet after the horse-play had been effected.

The old 1656 ran up and down the Plymouth Division of the New Haven road for many months, carrying an extraordinary device, suggested by an engineer, to improve her steaming qualities. This consisted of a cast-iron cone, bolted across the top of the stack, and with the point of the cone dropping down inside of it.

This was across the top, remember, while that of Mr. Yeager was on the bottom. Beyond reducing the area of the stack in proportion to its dimensions, the inverted cone had no more bearing on the results, either. All these things, however, served one good purpose at least—they lightened the burden of the round-house-foreman who had the knack to sneak them in, even if he did have to shut the old man's eye up to do it.

The Overwhelming Routine.

There are certain routine duties of his own which fall to the lot of the foreman, in addition to his everlasting struggle with the unexpected. He is required to O.K. the individual time-slips turned in at the close of the day by each man on his force, sign all orders for material required by the machinists and others, and to mark up the ready-board for the information of the despatcher.

In recent years he has at least been largely removed from one fruitful source of trouble—the handling of the engine-crews. Now the engine-despatcher takes care of this, and handles the call-boy as well, the latter in itself no inconsequential proposition.

Before the advent of this assistant, the foreman had it all to do. He kept the turns of the engineers and firemen straight, as best he could, from the list of extra men which hung, half effaced, on a grimy call-board, held the call-boy under his wing, and "gave away" the vacant engines largely as he listed. Incidentally he saw that the crews were hustled to the house in season to leave for the depot without a terminal delay, and often rode with or chased them all the way there to attain this necessary end.

The Extremes of Duty.

When to these distractions might be added the signing and the attesting to the correctness of the engineers' and firemen's time-slips, shop-men's time, wrangling with the train-despatcher, per phone, over power, getting the finished engines out of the house to make shop-room for the line on the ash-pit just arrived, besides maintaining an unrelaxing vigilance over one hundred men representing a dozen trades, it may be appreciated that the roundhouse-foreman earned his meager stipend.

It is meager enough now, averaging about one hundred dollars per month for the entire country; but it is improving in that regard, and also in the direction of shortening the working hours of the foreman.

The recent innovation of the Erie Railroad, in its larger roundhouses, of dividing the twenty-four hours among three foremen, each on an eight-hour turn, has met with much approval, and is resulting in increased efficiency.

Of course, it means divided responsibility, in a way, as a foreman could only be held accountable for something which went wrong on his own trick; but the old plan of having a man in charge responsible for twenty-four hours was too much, and this reform is not a day too soon.

Although conditions have changed somewhat in this department, as they have radically changed in the other shops, the roundhouse and its foreman still remain largely true to the ideals of the past. Half the roundhouses which you may visit, when in the grip of winter, will display the same features which possibly you recall so well—the broken window-panes, the doors which do not fit at the bottom or will not close behind the engines, and which allow the icy blasts and the shifting snow to find a way in just as unopposed as in the days of yore. You will see the men out of a job, and maybe

some with it, backed up against the old round stove, with its stumpy stack, their wrenches and tools thawing on its tray, and grouped in the same familiar fashion.

The steam escaping from the housed locomotives still congeals into a frozen hail of minute particles, through which specterlike figures stealthily grope their way, each with an arm extended in the same old way which protected you many times from collision with a bar or truck.

Over there a machinist is prying a jack from its icy bed, and in the circle behind the house is the foreman, indicating to the turntable-man to run such a one in here, and take another out of there. You will observe that the same human line of grief still circles around him, and that his epigrams and witticisms, as each one is dismissed relieved of his burden, have lost none of their poignancy. You will think, maybe, that time has dealt gently, after all, with the roundhouse end of it, and you might wonder after these many years how they can still find a man to take this job, when you know the equivalent he has to give for the honor of holding it.

No spirit of optimism could ever define it as an easy job. With its grief and adversity rightly viewed in their true proportions, it would appear amazing that a machinist accepts it, especially in view of the fact that his trade qualifies him to make an equal amount of money in very much easier fashion.

Nevertheless, you know its vale of tears is trod by a thousand sturdy and ambitious souls, who rightly view that through it alone lies the goal of advancement in the service, and the grand prize of recognized executive ability in the railroad world.

Apprentice to machinist, machinist to foreman, foreman to master mechanic, and master mechanic to superintendent of motive power. This is the time-honored road, and there are few, if any, instances of deviation in the careers of those who hold this latter and justly coveted position to-day.

Without the invaluable experience which came from the hard knocks in the roundhouse they might not command the ten thousand dollars annually which many now receive. It may be that the roundhouse-foreman knows of these things, and they may help to explain his fortitude and constancy at least in part.

Mr. Rogers's next paper in this series, "The Master Mechanic," will appear in our July issue.

STEAM-ELECTRIC LOCOMOTIVES.

A LOCOMOTIVE of an entirely new type, the driving-mechanism of which consists of a steam turbine coupled to an electric generator, which supplies current to four motors on the driving-axles, is under construction by the North British Locomotive Company, of Glasgow, Scotland. This new type of motive power, which is called the Reid-Ramsay system, was described by Hugh Reid, deputy chairman and chief managing director of the company above mentioned, in his inaugural address as honorary president of the Glasgow University Engineering Society, October 29.

It was explained that this is not the first attempt to develop a self-contained steam-electric unit. The Heilmann steam-electric locomotive, built in 1894, was given wide publicity at that time; but the Reid-Ramsay locomotive, it is stated, develops the idea on a different and more practical basis.

In the new engine, steam is generated in a boiler of the ordinary locomotive type, which is fitted with a superheater. The coal and water supplies are carried in the side bunkers, and side water-tanks at both sides of the boiler. The steam from the boiler is led to a turbine of the impulse type, running at a speed of 3,000 revolutions per minute, to which is directly coupled a direct-current, variable-voltage generator.

The generator supplies electrical energy at from 200 to 600 volts to four series-wound railway motors, the armatures of which are built on the four main or driving-axles of the locomotive. The exhaust steam from the turbine passes into an ejector-condenser, and together with the circulating condensing water, is delivered eventually to the hot-well.

As the water of the condensation is free from oil, it is returned from the hot-well direct to the boiler by means of a feed-pump, and the supply of water carried in the tanks is actually circulating water for the condensation purposes. It is circulated by means of small centrifugal pumps driven by auxiliary steam turbines placed alongside the main turbine and dynamo.—*Railway and Engineering Review.*

WHY HUTTON HATED BATS.

BY ROBERT FULKERSON HOFFMAN.

He Relates Here What the Coroner Failed to Bring Out—and More.

"S-S-S-S-T there! Shoo! You brood of vampires!"

Quiet-spoken, well-ordered Hutton sprang suddenly erect from his plank seat just outside the door of the watch-box at the top of the mountain. He flung his arms wildly above his head and waved them futilely while he limped a step or two forward, and then stooped to clutch a chunk of rock ballast in either hand.

These he hurled venomously at a pair of wheeling, fleeting shadows that plied tirelessly to and fro in ever-varying dips and high-flung elliptics in the twilight, which was deepening under the overhanging pine boughs across the tracks.

With a muttered imprecation he faced about, limped back to where his astonished visitor sat dumbly wondering at this sudden eruption of feeling, and reached past him through the open window into the watch-box.

When Hutton's cramped and twisted body had recovered itself from leaning deep through the window, he stood quickly erect and faced around again to the tracks. In his hands was a high-grade hammerless shotgun of automatic pattern. With practised skill he flung the muzzle skyward and the stock to his shoulder.

For a little space, his eye gleamed like a living spark along the barrel while the muzzle traced in the half-darkness in miniature the fantastic dips and swift-drawn ellipses of the objects of his wrath. Then the gun spoke sharply—once! twice! in quick succession.

There came a flabby, muffled, double thud upon the tracks, and from the mountain-top rolled the echoes.

"Got 'em both!" he announced with deep satisfaction as he carefully replaced the gun in its concealment and picked up from the window-ledge a rusty claw-hammer and two bent wire nails.

"And I'll get every last one of the grinning little demons, if I'm let stay on this trick," he concluded savagely.

"Bats! Ugh! Man, how I hate 'em!"

He hobbled out to where the tattered little victims lay gasping their hideous last with sharp white teeth gleaming evilly from baby-pink mouths. Catching them up gingerly by the tips of the wide-spreading membranes, he labored on across the double track of the siding, and climbed the yellow shale bank to the foot of a huge pine.

With the eager energy of one who would spike home a switch-rail past slipping, he nailed the small malefactors well upon the trunk of the pine. To the intent eyes of the visitor, the somber belt of ruffled gray that girdled the red glow of the giant pine bole assumed a new significance. That which his wandering eyes had earlier adjudged a mere curling of the roughened bark, he now saw was row upon row, circle above circle, of bats nailed with methodical precision to the trunk of the tree.

"Yes, we'll get 'em all, by and by," said Hutton in keen content, resuming his seat upon the plank. "But there must be a holy show of them in that crevice of rock up yonder, if a fellow could only get to them.

"I'd a noticed this pair sooner, maybe, only that I'm sort of took up with what some fellow's saying about engineers and things in this paper I been looking over just before you come."

He tapped softly with the back of his knotted hand upon the soiled and much wrinkled illustrated weekly lying on the bench beside him.

"These writer people," he continued, "they make a fellow think of the old cross-head pumps that fed boilers before injector times.

"Sometimes there's just a little pinhole or a split in the thing somewheres, and what they don't put into the boiler they splatter all over the right-of-way, but always keep pumping—wind or water.

"It makes a scandalous crop of railroad weeds and rubbish for the newspapers. And that's like the old plunger pumps, too. For I've seen many a section foreman stand and cuss till he was blue in the face, when one of them old engines went p l u g g i n g past with her pump petcock open, irrigating the dry wayside till a ton of weeds grew where only a mild cutting grew before—to say nothing of what the foreman got if he didn't sidestep.

"But he most generally did—the gang foreman—and that's what I'm aiming to do with this writer man's little spurt; sidestep it, and let it go by without cussing, for the sake of the good stuff he did get into his newspaper boiler.

"That's just when you come along, and the bats break out, and this writer fellow's spurt seems all of a sudden to catch me square in the face and carry me back to the day that Ned Hanlon and the rest of the crew went smiling down the grade here on Hanlon's engine, never to come back.

"I take it the meeting-point this writing aims to make," softly tapping again with his roughened hand upon the pictured sheet, "is this:

"That engineers on locomotives don't cut the figure in engine running nowadays that they did in times gone. The eagle-eye's not the big noise now. His wings is clipped by the despatcher, who deals out all the cool, hard nerve, and there's never a chance to be took, lessen the despatcher hands him the dare.

"The semaphore guides him by day like a cloud, and the red light leads him by night, gentle, like a pillar of fire.

"He's that hedged in and cuddled down in safety in the cab that he can't go wrong, nor do any figuring for himself without getting clean off the right-of-way.

"No more gambling with death. He's

TO THE INTENT EYES OF THE VISITOR, THE SOMBER BELT OF RUFFLED GRAY THAT GIRDLED THE RED GLOW OF THE GIANT PINE BOLE ASSUMED A NEW SIGNIFICANCE.

told just how fast he's to run, each minute and every mile. No more winning back minutes unless he's told. The romantic times is gone, says it; meaning, I take it, that there's no more wondering what's over the mountain or around the curve; what will hold strong and good for the hill-climb; what will let go and spill; who's a coming against him; who's hung up and cussing on the siding.

"No more mystery at the end of the rail or the end of the run. The eagle-eye's a stuffed bird under a glass case in the despatcher's office. He couldn't break out even if he's alive, this paper makes out.

"Well, 'It's wrong!' I says to meself when you're walking down the track the while back. 'But if you was to try to tell it, how would you tell it?' I asks meself.

"And while we're setting here, quiet-like, the bats wheels up and writes the answer in the air before me eyes:

"It's the unknown, the mysterious, the thing you can't weigh nor measure nor deal out over the wire, that'll mark the railroad and the engineer with romance—do they call it?—till the last curve is straightened and the last mountain is leveled.

"And even then—which is no time at all—if you looked across the brown world as you'd look across a sea and sighted the smoke of a coming engine, hull down, as the sailor says, below the rim of things, knowing that she's heading for you at a hundred miles an hour, you'd stand there hungry, but what you'd see what's to happen when she got to you!

"You would?

"We know it well, the mystery, the thing that comes always in a new shape out of the unknown. But *how* will it come?

"Look at them!" exclaimed Hutton, extending his long arm toward the big pine and its gruesome ruffle growing duller in the fading light.

"Would they kill a man on an engine?

"'No,' you'd say. We'll see.

"Would they be the death of a man cutting off helper-engines and holding this watch-box like me?

"Again you'd maybe say, 'No.'

"His arm swept out again to compass the peaceful village far below, still lying warm in the red glow of the hidden, waning sun, while they, sitting at the mouth of the open cut from the tunnel, were deep in the lofty gloom of the mountain's darkened head.

"It was the end of a day like this," he said, "when Ned Hanlon headed out of the tunnel-mouth up yonder. The semaphore-light at the telegraph office was red against him, glowing sharp and bright in the half-dark of the cut and the black mouth of the tunnel, same as now.

"The vesper bell was sending the same clear, half-laughing, half-weeping sound trembling up here from that little church spire down there in the sun, same as now. And good old laughing Ned rolled them — fifteen box-loads — down this train length of grade with the helper-engine coupled on ahead.

"They stopped here by the watch-box, and Danny Roe cut the helper off and crossed it out of the way, while Ned sat in his cab-window and looked out into the deep of the valley, like he always did.

"Yes, Ned seen it all, just as we're seeing it, and he called, laughing like, to Danny:

"'Danny! You hear that bell down there in the valley? That bell's a calling for me, special, to-day!'

"'How's that?' says Danny. Danny had this job of mine then.

"'Come closer and I'll tell you,' laughs Ned.

"'I've no time to give to yer laughin', ye rascal,' says Danny. But he goes over close under the cab-window, no less, and Ned tells him, low and quiet.

"'Ye will?' says Danny, stepping back sudden, and loud as a young crow.

"'Ye'll be marrying her that's head nurse at the hospital. The slip of a girl that's mothered us all, one time and another. Ye'll be takin' away from us little Mira Dale, that's sister to all and mother to many's the homeless railroad lad.

"'Well, bad luck to ye for the sly blade ye are. And the best of luck to ye both to the end of the world—and then plenty!'

"'Thanks, Danny,' says Ned, with his

face red as the glow of the sun down there in the valley.

"'It'll be to-night. As soon as I can wind this string of box-loads down the mountain, get out of my bluejeans, and wash my face.'

"'Well, it's too bad ye must take up this empty gondola then, the trip,' says Danny, with a jerk of his thumb toward the empty on the siding. 'But it's orders up at the wire shanty, and ye may's well pick it up without waitin' till he comes up from the caboose and cusses ye into it. Yes, yes; I know ye have enough. But it's orders.'

"Danny cuts Ned's engine off at that; crosses him over and couples them up.

"He fusses and batters so long at the air-hose coupling that Ned hollers quite savage:

"'Say, are you rebuilding the old car, Danny, or are we only on the rip-track?'

"'I'm not,' says Danny. 'Let her go!'

"The car released when they cut her in. The brakes released along the train when she was coupled in. They set and dragged, all right, when Ned took the high-sign from the caboose, a bit later,

"HE HEARS THE LONG CALL AGAIN."

and tested his air when starting down the grade at the first move forward.

"And then he took them over the lip and rolling down into the long stretch of the grade yonder, with the weight of fifteen crowding box-loads and the empty upon his soul and the joy of his wedding-night swelling in his heart.

"But he's more than that. He's the question of the despatcher, handed up to him by word of mouth, from the wire, just at the last minute before starting. That's laying heavy on his soul.

"'Can he make up five minutes?' is asked.

"Asked, mark you. Not ordered. Yes. There's still something left to the eagle-eye and the conductor. There's never a day that the two of them don't add up the book of rules, their handful of running orders, and the sum of their past luck, divide it by three, and do the best they can with running on the answer.

"So, Ned flashes his wits over the ten miles of crooked grades that'll take him to the bottom, swallows the rule of twenty miles an hour top speed on the grade, and says he can make it for the sake of the ten-car silk train that'll be laying at the yard when he gets there with the five minutes saved.

"All this is how he come to let them roll a little strong at the start from the top, with his twin-brother Frank, as like him as another self, holding down the fireman's box, and the head shack dangling his feet from his perch on the tender tool-box above the gangway.

"Yes. The two Hanlons—the 'Red-ball Twins,' we called them when they took the fast-freight run together, with Frank to be set up to running in the month following—the two of them and the head brakeman rolled down under the pine-boughs, and the quaking ash waving and wimpling in the breeze; the sun reddening the valley, the shadows darkening the cut here, and the bell sending up its evening call—just like to-night.

"Danny Roe set here upon this plank and listened to them going down, down, deeper along the mountainside, and he talked to the red-pine bole across the tracks, shook his head, and waited.

"How do I know? He told me that—and more.

"Not long he waited. Then the thing that was aching in the bottom of his mind came real out of his fears. Ned's long call of the whistle came booming up the mountainside, and the roar of the wheels floated up to Danny like he stood on a cliff and heard the sullen booming of a sea.

"A little longer, and he hears the long call again. Then the crashing boom and grinding roar of the likes of a landslide from the heights—and Danny's racing down the grade afoot, a wild man in the dead quiet of the mountain.

"No, no! Yes, I know the doings of it. But I'll not say it.

"Ned Hanlon's air went bad. That's all I'll say now of that. He lost them on the second grade. We were ditched at the next turn on the hip of the mountain. The noise that Danny hears is us rolling down the hillside in a splintered heap of plunder. When I come to at the bottom, I'm laying with me leg pinned fast in the rubbish.

"The blood that's dripping from Frank Hanlon's face and the blood that's draining from me own is making a pool in the soft coal where he's dug me face clear, and he's holding me mouth shut and breathing the breath of life back into me nostrils with his own good life.

"I'll not tell you more of that. I lived it once—

"Eh?

"Yes. I was the front brakeman.

"It's too fresh in me mind, just yet, you see—maybe, some day— But the green you now see darkening in the valley round about the village is but the second green that's grown above the face of Ned Hanlon. Yes, under the engine, Ned was—

"Well: we lost them on the grade, as you've seen, two years ago this day, and Mira Dale lays aside her bride's dress that night, and dons her suit of striped blue-gray, taking her brave way back to her place in the hospital 'stead of the church.

"When next I'm knowing, Frank and me is pardners again; but it's side by side on our cots in the accident ward.

"The days drag by, with Mira hovering over the two of us till, after a spell of setting up, we're able to slipshod some around the ward—me with me busted leg all bent, but mending fast, and Frank with his hurted head all bandaged, and mending slow.

"It goes on that way till we're in the convalescent ward, and all the while, from the time that Frank comes out of the operating-room and the gas, or whatever they give him, there's never a word in his talk that shows he's been through the mixup same as me.

"At times we're linked arms and shuffling along the ward together like, and he always heads for the big end window that looks out to the mountain here, and

when we're lined up there he keeps saying:

"'What are they holding us for, Hutton? Why don't we get orders and go? We'll never make it this way!'

"It's plain there's something bad hurt about him. The color's creeping back to his face, but not the light that ought to be in his eyes.

"So I says to him, gentle like at such times, after I'd had a talk with Mira:

"'It's the mix-up in the pass that's holding us, Frank. Don't you remember? We lost them in the run down the mountain, but it's all right now. Remember?'

"'I wasn't in no mix-up,' he'd say, looking at me sober as owls. 'Let's get orders and go home.'

"It's that way when the coroner gets leave to hold what part of his court he needs there in our ward. I tell him, free, all he ought to know, from my thinking. Frank just looks him sober in the eyes, and says:

"'I wasn't there. I'm running with my brother Ned. Ned don't make no mix-ups. Say! What are they stabbing us for? Why don't we get orders and go?'

"Well, the coroner gives it up, at that. He's got all he wants, anyway, for coroners don't need much more when there's a dead engineer. When he's gone, I slips away from Frank and makes for the hospital superintendent's office.

"Going down the last flight of steps from our ward, my eyes is that blurred with thinking about Ned and Frank and all, that, with my leg not working just right, I jumbles the last two stair-steps into one, and fetches up with my head against the corner of the hall surbase.

"It gives me some of a gash above the eye—you'll notice the mark here—but it gives me, too, more of the chance I'm wanting, when they've lifted me in and done the stitching that it needs.

"I'd been thinking it a lot on me own account, you see, and I'd slipped down to the basement and talked it some with the hospital engineer, who's an old locomotive man and full of sympathy.

"IT GIVES ME SOME OF A GASH ABOVE THE EYE."

"He agrees to what I'd planned, some days before, all providing the doctor's willing.

"So, when they're done patching up me eye, I ups and says to the chief surgeon:

"'Doctor, will you listen to me a word about Frank Hanlon?"

"'Yes,' says he. 'Fire away!'

"'His head's not well fast enough,' says I. 'Will you give him into my care for two hours each day?' I says.

"'I will not!' says he, prompt, and savage as bears. 'What would you do with him if I did?"

"Then I explain to him. He kind of laughs with sympathy, and my point is made.

"'Well, you may try it,' says he, 'but you'll take a ward man with you, and quit at the first sign of weakness, or when the ward man says enough.

"'There's a little clot there that's got to be absorbed and worn away before Hanlon will remember,' the chief goes on, 'but otherwise he's sound and healthy as a young buck.

"'You may try it, but go slow,' he says at the last; and I hurried away to the basement, cut head, bandage, and all.

"I got a cap and suit of overalls from the engineer.

"When I'd made my way back to the ward, the nurses knowed all about it, and had their orders. Me and the orderly walks up to where Frank is standing, looking up here at the mountain, and when he turns from the window I hands him the cap and overalls, all quiet, before he can make his question about being stabbed for a layout.

"'Come on, Frank,' I says. 'We're called for three-thirty.'

"He takes the things, as natural as ever, and walks away with us to the fire-room, where the hospital boilers are kept.

"'What do we get?' he asks on the way.

"'First thirty-four,' I says; and he talked along chipper as crickets till we set him sweeping up and firing and fussing around down below.

"We kept it up for three days, in short shifts, and him talking railroad more sure each day. Then, on that third day when the sun's dropping behind the mountain up here, he turns away sudden from the boiler-room door, where he's been standing.

"He's as white as death, and the sweat is pouring off his face in little trickles.

"He drops, weak like, on the bench inside the door, and looks at me, scared and wild.

"'Hutton,' he says, 'where's Ned? Was there a getaway on the mountain, or is there something the matter with me? All right, Hutton,' he says, before I can answer, 'I know now!'

"We caught him as he slid off the bench, limp as water, and carried him back to the ward. He's in bed a week, but keen and clear, and getting stronger.

"It's two weeks more before we're discharged as cured, and the day after that we're in the superintendent's office having our railroad hearing.

"It goes the regular route of such proceedings, and spite of all me and Frank can tell to the contrary, it's being drove in and clenched that Ned Hanlon fiddled his air away on the grade, and lost them on the hill by having an empty train-line when he needed air the most.

"Reckless running and bad judgment was the burden of it, when the door opened and Danny Roe, who'd not been seen since the wreck, came in, and stood just inside the door, with his old gray hat clutched and crumpled in both his hands.

"'Hallo, Danny!' says the superintendent. 'What did *you* run for? Where have you been? Come over to the table. We'll not bite you!'

"Now, I'll own that Danny was rumpled and wild-looking; but he got too scant a hearing.

"'Did you cut the air in for Ned Hanlon the day of the runaway?' asks the superintendent.

"'I did,' says Danny, crossing over toward the table where we're all gathered.

"There come with him in the draft from the door a breath of something that's sure death to railroad jobs this day.

"'There was bats—' says Danny, licking his dry lips and clutching at his hat.

"'*Bats!*' says the superintendent, cold as ice.

"'Yes. I guess there were!'

"'I'll ask you one more question, Danny, and I want the answer straight. Have you been drinking?'

"'I'm weak with the sorrow of it,' says Danny. 'I took wan drink to help me to stand up before ye and tell the truth, and if ye'll listen to me I'll tell it. There was bats in—'

"'That's all, Roe!' breaks in the superintendent. 'You are discharged for absence without leave. I would not go so far as to say that you are drunk; but we have no time here for bat stories. You may go.'

"'For the love o' man, Mr. Sarchy,' says Danny, 'ye wouldn't turn me away like that, when I'm taking the blame for it all on me own self! Let me clear the name of Ned Hanlon that lies speechless and still over yon be the church, and I'll—'

"'Don't make this thing harder for us all, Danny," says the superintendent. 'Just pass out quietly now and save trouble. You are fired.'

"Danny went—and said no more.

"But, when it's all over, he's waiting for me and Frank up the street a ways, sober as ever was any man, and the bitter tears streaming down his face. And this is what he tells us:

"'The evenin' Ned picks up the car on the mountain-top, I'm settin', the while before he comes out of the tunnel, watchin' the bats wheelin' and tumblin' around the big pine.

"'The empty Ned's to pick up stands there with the air-hose hangin' to the ballast 'stead of hung proper in the dummy. It's me own neglect, an' I'm that worthless that I don't get up just then and cross over to snap up the hose to its place, as would have been proper.

"'No. I sets there, lazy, to the shame o' me, watchin', watchin' the little devils wheelin' an' dippin' till, of a sudden, wan o' thim spats hisself ag'in' the car-end and sticks there, to rest like, as they will, an' the mate o' him swoops after and clutches fast to the air-hose.

"'It's all done in a wink, an' before I can get to the brute he's slithered down an' crope into the hose-coupling!

"'I beats an' pounds at it, an' I'm at it yet, you'll remember, when Ned comes with the train. I can't get him out, an' I'm that ashamed to say anythin' for fear of Ned's teasin' that I says to meself:

"'"Well, three-foorths o' ye's juice o'

"LET ME CLEAR THE NAME OF NED HANLON!"

bats, an' the other half's feathers, an' I'll not raise a row about me own ears fer the sake o' ye!"

"'That's where I'm wrong. The bat lays low till the air's tested twice, an' ye are off down the mountain. Then he's squeezed up or was pushed up into the strainer be the air. He plugs the hose! The train-line's empty—an, oh, it's me that kills poor Ned Hanlon an' sends sorrow to ye all!

"'That's what I done! I done it o' me own shiftlessness an' me false shame fer the fear o' Ned's bit o' fun at me! I hunted in the car-scrap be night till I found the sills o' that first car, an', ripped an' hangin' there still, was the air-hose. I tore it open to the couplin', an' found the murderin' bat!

"'The filthy body an' the bones o' him was pluggin' the couplin', as I tell ye. An', fool that I am, I tore it out be bits and beat it to nothin', there in the dark o' the yards; an' I've nothing to show to clear the name o' Ned Hanlon. They'll not believe me. No, not one!'

"That's what Danny told us," said Hutton, searching the face of his visitor in the last of the daylight in the tunnel-cut.

"We tried to get him heard again, but it was no go. The thing was closed, they said. And there's only three of us now that believe what Danny told—that's me and Frank and Mira."

"Four," said the visitor quietly.

"No; three," said Hutton. "Poor Danny died of a broken heart, and there's only a short span of earth between him and Ned in the quiet down there under the shadow of the church spire."

"Four," repeated the visitor, with quiet insistence. "Won't you count me?"

"Then, four," said Hutton, reaching strongly for the visitor's hand. "And, since you are going down on the 'Red Ball' with Frank Hanlon now—there's his headlight cutting the black of the tunnel-mouth—I'll tell you this:

"This night Mira Dale will lay off her striped dress of blue-gray at the hospital, and, in the bride's dress that's been folded away these two years, she'll stand with Frank beside her in the church. She wanted it so, about the dress, and Frank wouldn't say no to that.

"The bell that called to Ned, poor boy, was calling Frank to-night. Frank will go now, and I'll set here listening till I hear his whistle booming out the home-shouting to Mira, when he's safe in the yard-limits down yonder.

"Yes, the yards are just below us, you might say, for all the ten miles of turning and twisting down the mountain, and after the boys are gone a spell, with all quiet up here, the whistle for the home-signal comes rolling up the mountain, like the far singing of a big choir.

"Now, if some writer fellow was to tell about Danny and all—tell it fine and good—would it be like what I'm alludin' to when we first set down; what they call 'romance'?" queried Hutton, in some evident concern as they rose at the coming of Frank Hanlon's engine. "Or would it be just common true, like regular reading?"

"Romance," said the visitor softly, as he set his stronger pace by Hutton's limping gait, toward the waiting engine.

WHAT'S IN A RAILROAD.

DID you ever stop to think of the amount of material necessary to construct one mile of standard railroad track, leaving out the embankments, cuts, bridges, pipes, masonry, telegraph, fences, and buildings of every kind—including only the bare track? The following figures show:

Ballast, 3,000 cubic yards; weight, 3,750 tons; 150 car-loads.

Ties, 3,000; weight, 192 tons; 6.4 car-loads.

Rail, 90 pounds per yard; weight, 141 tons; 5.2 car-loads.

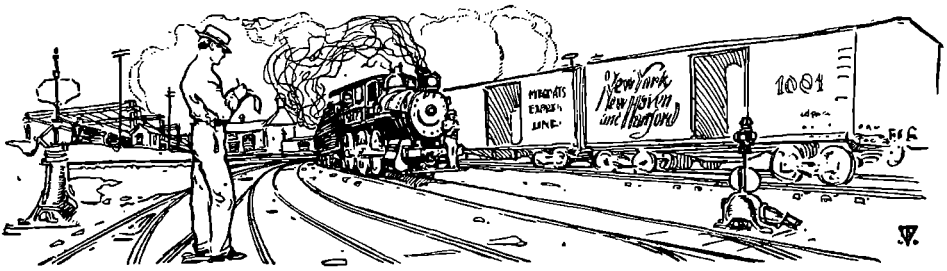
Joints, 328 pairs, 33-foot rail; weight 13.7 tons; .46 car-load.

Bolts, 12 kegs; weight, 12 tons; .04 car-load.

Spikes, screw, 12,000; weight, 7.8 tons; .26 car-load.

Tie-plates, 4,688; weight, 20 tons; .67 car-load.

The various materials enumerated above make a total of 4,125.7 tons, or 163.03 car-loads, being about five full train-loads of *material per mile of track.—Santa Fe Employees Magazine.*



Lost and Stolen Cars.

BY PEARSON MACINTOSH.

IT is notorious that the smallest things often cause the most trouble. The more perfect and complex the organization, the more this is likely to be the case. Where, by strict rule, every trifling detail in a large system must be accounted for, it is only likely that the least items will be the most elusive and cause more work than larger and more obvious assets.

In the routine of a great system the small things are as important as the big things. On a railroad these small things are just as important as in other organizations, and ten times more elusive. The checking system that can approximately keep track of the rolling-stock of a great transcontinental line is a monument to human genius.

The Whirlings of the Giddy Freight-Car Over Three Million Square Miles. How Difficult It Is to Keep Track of All Its Spiral Twists.

IN the Union Pacific car service department the documents in this case make a paper monument more imposing than that which was upbuilt with all the deeds pertaining to the purchase of the whole line by Harriman. Yet, this is a simple little case of one empty box car that strayed, got lost, and was stolen.

In the Northern Pacific car service department there's a similarly imposing shaft of documents relating to that same lost, strayed, and stolen box car.

The documents include, principally, letters written by the two roads at the time the car disappeared. The tale has its beginning in the flood that brought devastation to Kansas City three years ago. In that deluge a freight-train of twenty cars, caboose and all, was washed from the tracks a short distance out of the city.

The cars were mostly empties, and all except one of them were afterward found, more or less unroofed, undoored, and untrucked, lying thus amputated and scattered over a square mile of Kansas landscape.

The one missing car, an empty, remained missing, despite the efforts of the parties that scoured the country in quest of it, with their very noses to the ground. That car was the property of the Union Pacific, and the road responsible for its return to its owner was the Northern Pacific.

Twenty days elapsed. Still no car!

Whereupon the Harriman people, in accordance with number three of the "Per Diem" Rules for car service, made formal demand for the return of their car.

Thirty days passed without a sign of the lost car. And now, again in accordance with rule three, the Union Pacific notified the Northern Pacific that it was liable to a payment of seventy-five cents a day in addition to the regular per diem charge of twenty-five cents.

Three months slipped by. By that time the car service departments of both lines had grown so literary, and had acquired so deeply the letter-writing habit, that great sheaves of correspondence were swapped almost daily.

The Documents Grow.

Meantime that car had vanished, had melted away as if it had been a cake of ice in the warm waters of the flood; had disappeared as mysteriously as a card from the hands of a Hermann or a Kellar.

Six months! Still no trace, though the railroad people pursued the still hunt conscientiously. The Northern Pacific, according to per diem rule seven, might long ago have reported the car destroyed (and hence put a stopper on the avalanche of correspondence, and, incidentally, on the per diem charge), if only they had unearthed even the smallest evidence of destruction.

But not even a remnant was discovered—not a bolt nor a board that could be identified as part of that particular car.

Nine months! No car! But pigeonholes were choked to death with correspondence. The Hill car service men raged impotently at the failure of their sleuths to locate the missing car, and Harriman car service men made further demands, just as impotent, for the return of their property.

A year slid into history, and thirteen months. By this time the Union Pacific men were injecting sarcasm into their literary productions, meaning, in effect: "What sort of fellows *are* you, anyway, that your search for our car is as futile as that for Captain Kidd's treasure?" In this way the correspondence grew into reams.

Now, in the fourteenth month, the Northern Pacific men, blue in the face at being so long baffled, decided to make one last systematic search for that car, even if they could produce only its dead body. Right and left, men were sent, and north and south, to scrutinize every square inch of that part of Kansas near the flooded district, to hunt as a man hunts for a lost collar-button.

A Clue at Last.

One of the sleuths of the Northern Pacific, on the fourth day of the fourteenth month after the flood, spied some rusty car-trucks that were revealed by workmen in the process, who were removing the débris of a barn that had collapsed in the deluge.

The number on those trucks made the sleuth aforesaid whoop with joy. Here was part of the missing rolling-stock. The number was that of the car that was so badly wanted. And the trucks lay a quarter of a mile from the railroad track.

But the hunter was not satisfied. He wanted the *whole* thing. The other half, he bethought him, must be near. In casting his eye over the geography, he finally caught sight of the name of a patent cure for biliousness that was painted in large white letters on a black background, half a mile from the railroad track.

In his huntings and snoopings, he had passed that sign often. And as often he had ignored it as furnishing no clue to the lost car. Now, however, he recalled that the name of that patent medicine was emblazoned on the four sides of an improvised stable.

He sought the farmer who owned the nag that stood in the improvised stable.

"Where'd you get that stable?"

"Didn't get it. Just took it for my mare. It was once a box car, as any fool could see."

"You remember the car number?"

How It Happened.

"No! Hadn't more'n located it 'fore a man came along and give me four bits just for lettin' him give her a nice coat of paint along with them bilious cure words."

"But don't you recall any railroad sign on that car—a shield, for instance?"

"Shield? Right, I do, stranger! A shield, and in it was the word 'Overland.'"

"Found! Found at last!"

"Found? You lost something, stranger?"

"Yes. We'll trouble you to hand over that stable. We'll send men to get it."

Forthwith the "stable" and the rusty trucks were sent to the repair-shop. There the patent-medicine paint was carefully scraped away, revealing, sure enough, the number identifying the "stable" as the long-lost car.

In the middle of the fifteenth month from the time of its disappearance, that car, now shiny in a coat of real freight-department paint, and otherwise renovated, was delivered to the Union Pacific. And with the receipt for the car in their possession, the Northern Pacific car service men danced a jig to the tune of a comic-opera ditty entitled, "And the Prodigal Came Back."

A few days later, however, consternation reigned in the Northern Pacific car service office. A bill had been received from the Union Pacific for the rent of that long-suffering car—a bill for twenty-five cents a day for the first thirty days, and one dollar a day for each day in the rest of the fifteen and a half months that the Northern Pacific was responsible for the car.

And Then the Bill Came.

For the per diem rules permitted the Union Pacific to put in just such a bill, and it amounted to $442.50.

A Harriman man told me that, in an effort to get square, the Hill men sent the farmer who had taken possession of the car for his mare a bill for $442.50 for "a year's rent of stable." And that Harriman man had such a baby-blue eye, too!

Not only cars, but entire trains, have been lost. I know two stories of lost whole trains. For the first of these stories I am indebted to Mr. Rivett, car inspector of the Union Pacific. He and I, with Mr. Cotton, a Union Pacific land agent, were sitting together when he told about it.

It happened in October, 1906. A freight-train on the Burlington route left Omaha at eight o'clock in the evening, with orders to go to Plattsmouth, Nebraska, which is south of Omaha.

The despatcher responsible for the movement of that freight-train sat at his desk in Lincoln. To him the train was reported as arriving at Gilmore Junction, a station a little south of Omaha. A few minutes later he received word that the train had left Gilmore.

Ten minutes passed, and the despatcher should have received word that the train had reached or passed the first way-station south of Gilmore. But no such message came. Fifteen minutes passed, and the dearth of news from that train made the despatcher curious. He called up the agent at the way-station and asked if the Plattsmouth freight had passed. The answer came back, No.

Trying to Find a Train.

"Maybe he's let her get by without knowing it," thought the despatcher.

Forthwith he called up the second way-station south of Omaha, at which the train was now due. By that time twenty-five minutes had passed since the train had been swallowed up in silence. From this second way-station the answer came: "Know nothing of Plattsmouth freight."

On hearing this the despatcher was no longer curious; he was furious. Thirty minutes! Dead silence regarding that train. Forty minutes! The despatcher, now completely nonplused, and biting his pipe ferociously, called up the telegraph operators at all stations between Gilmore and Lincoln.

The answers were monotonously disheartening. Not one of the operators could give an account of the train.

"Great Scott! Where is that train, then!" cried the now blasphemous and ashy-faced despatcher. "I must stop every wheel on the division till I locate that train, or—"

Forty-five minutes had passed, and the despatcher proceeded to send the necessary orders holding up every train between Plattsmouth and Omaha. Forty-eight minutes! Forty-nine! Fifty! And then—

"Good Heavens!" raved the despatcher. "Has that train wiped itself off the map?"

Plainly, the Plattsmouth freight was lost. It had faded away like the smoke from the despatcher's pipe. What had become of it? Had it tumbled from a trestle into the darkness of a ravine, killing the entire crew? Or had it leaped from the tracks and continued its journey across the farms of Nebraska, the engineman unable to stop the runaway?

Fifty-one minutes, and—Oreapolis, a station near Plattsmouth, was calling the despatcher at Omaha.

"Plattsmouth freight, number ——, waiting here for orders. New crew. Ran from Gilmore over Mop track, instead of over Burlington, without being aware of mistake."

What did he mean? The Burlington and the Mop (Missouri-Pacific) tracks parallel each other, not far apart, out of Omaha, to Gilmore, where they meet. We know that the despatcher received word of the train at Gilmore, and its departure therefrom. Then it apparently disappeared into oblivion.

Where It Had Been.

Now, at Gilmore, the Burlington and the Mop tracks separate after leaving the station, but continue south parallel with each other, though farther apart than north of Gilmore. Near Oreapolis they once more meet.

Well, then, what happened? At Gilmore a switch had been left open, and the Burlington train had crossed over to a Mop track and continued on the Mop track southward to Oreapolis, where it again crossed to its own track to continue the run to Plattsmouth.

As both train and engine-crews were new—it was their first run over the division—they were blissfully unconscious that they were playing in another fellow's back-yard, and that they represented danger and death in a run over the wrong track. The Mop side of this story is not known, but no casualties were reported.

When the train-despatcher had wiped the cold sweat from his brow he wired Oreapolis this order:

"Plattsmouth freight, go to Plattsmouth. The crew then to proceed to Hades without return orders."

Railroad men have told me that this incident is one of the most extraordinary they ever heard of.

The Train That Hid.

My second lost train story was related by Dan Sullivan, Union Pacific district foreman for Wyoming, at Laramie, while we smoked the pipe of friendship in his office in the railroad yard.

One day a Union Pacific east-bound freight-train of twenty cars, with Andy Smith on the right of the engine, reached Tipton, Wyoming, and pulled into a siding to let passenger-train No. 4 get by. The passenger was east bound, and, as Andy knew, was right behind him.

Presently the flier passed Tipton O.K. Then Andy pushed his freight back on the main line and followed the flier. Past Red Desert he ran, and on to Wamsutter, where he pulled up at the station. Out rushed the telegraph operator, and cried:

"Where's No. 4—the flier?"

"She passed me at Tipton," replied Engineman Andy.

"The deuce she did!"

"Sure."

"Well, then, you must have run right *through* her on your way here, for she hasn't passed *this* station—stake m' life!"

"You're dreamin'. The flier passed me sixteen miles back, at Tipton—stake *my* life!"

"You're a fool, Andy. Hustle onto the siding, quick! That flier's still behind you."

And Andy Smith, sorely puzzled at the insistence of the operator, backed into the siding.

"But as that flier sure passed us at Tipton," he said to his fireman, "and as I came right on behind her and didn't strike her, and as that feller says she hasn't passed here, then where in all this gol-dinged world is she?"

Just then Andy heard the shriek of a locomotive *behind* him, the shriek of a train coming east toward Wamsutter. Andy could not believe his eyes. It was the flier. It stopped at the Wamsutter

Station, and Conductor Mills explained to the dazed operator:

"Had a hot box. Discovered it after passing Tipton. Drew into the siding at Red Desert, half-way between Tipton and here, to get off the main track till we cooled the box. On the siding we stood on the off-side of the coal-chute, hidden from the main track. That's why Andy Smith got by us without seeing us."

And from that day, Andy Smith was known as the only engineman on the Union Pacific who could pass the flier with a freight-train, with both trains on the same track and going in the same direction.

Now for the story of how a car disappeared from the middle of a moving freight-train, despite the vigilance of the "boys." At the time of this tale, link and pin couplers were used.

It was Engineman Sullivan's freight-train of twenty-four cars. That is, Sullivan had twenty-four cars when he came over the "backbone of America," at Creston, Wyoming, where a sign-board informs tourists that they are at the Great Continental Divide.

Getting Out of the Train.

But when the train got to Rawlins, a division end twenty-nine miles from the Great Divide, the crew counted their cars and found—only twenty-three.

A car had been lost! Lost from the very middle of the train! For they found that the train had parted in the middle. But the hind part had followed on down the hill so close to the fore part that the break had not been noticed.

"Do you mean to tell me that a car-snatcher could steal a car from a moving train?" cried the conductor. "You mean to say an eagle lifted that car bodily out of my train when we were running twenty miles an hour? You insist that a zephyr whipped out the pins and uncoupled a loaded coal-car at both ends and then wafted the car away into the ether?"

But, just the same, the conductor was obliged to report: "One coal-car missing." Then began a search for the missing car by all the section foremen and their gangs between Rawlins and the Great Divide. Two days went by, and three, and four, and still no tidings of the lost car.

On the fifth day Engineman Sullivan was again pulling freight over the Great Divide. He came to a place where the tracks skimmed the edge of a deep gully. On the brink of the chasm he spied some lumps of coal, and he stopped his train. Far down into the gully he peered.

"Well, I'm darned!"

The conductor hurried forward and joined Sullivan in peering down into the gully. "Well, I *am* darned! But what sticks me is how she uncoupled herself at both ends and dropped out of the ranks like a tired soldier. Say, Sullivan, this is sure enough the great *divide!*"

Tale of Two Strays.

Here's the story of two cars that strayed from the fold in the dead of night. Conductor Tom Wilkinson was furious because his train had stopped just beyond a curve midway between Kenesaw and Hastings, Nebraska, his being a Burlington freight-train, and his knowledge of the schedule telling him that the express was not a thousand miles behind him. So Wilkinson left his "way car" and hurried to the engineer, wrathfully inquiring, "What's up?"

"Cars off the track," replied the engineman.

"Bosh! Move on."

"I tell you there are cars on the ties. As we came around that curve I saw cars leanin' way over and sparks comin' from the wheels."

Conductor Wilkinson looked disgusted.

"All right, Wilkinson," said the engineman. "I'll move on—but they *was* leanin' *far* over, and they was emittin' *sparks.*"

The freight moved, but not the whole train. The train had broken in two. They "picked up" the rear part, then proceeded to Lincoln. There, at daylight, Conductor Wilkinson came to the engineman, saying:

"Did you say *sparks?* Well, then, there's two cars must have burned up, wheels, trucks, and all; because we *lost* two cars somewhere, somehow. And the old man is red-headed. Says you got to pull the wrecking-train back and find those two cars."

That night the engineman pulled the wrecking-train into Lincoln on his return from the hunt—and at once sought Conductor Wilkinson, saying:

"Well, we *found* your two cars."

"Burned to a crisp?" asked Wilkinson. "No? Then, what about those *sparks?*"

"They fell down the embankment at that curve between Kenesaw and Hastings, where we broke in two."

"Yes, yes! But about those sparks? Where does the conflagration come in?"

"There ain't none. The ties on that curve were all splintered. That shows the cars first off derailed themselves, and the violent contact of steel on hardwood—"

"What'll you have on me?" interrupted Wilkinson.

An Athletic Car.

The last story of all is of the "Jumping Car," a car that could jump four feet into the air, like a bullfrog or a kangaroo. The tale of this extraordinary car was related to me by Mr. Cushman, of Grand Island, Nebraska, formerly a brakeman on the "Alphabet Road"—the Chicago, St. Paul, Minneapolis and Omaha Railway.

Cushman's train, a freight, all stock-cars and all loaded, was doing its eighteen miles an hour over the Alphabet Road, bound toward Omaha, when it broke in two. After hitching the two parts together again, the train moved on. At Omaha, when they "counted up," a car was missing. Lost! But where or how was a deep, dark mystery.

Next day the "Alphabet" company sent Cushman back over the line to find the missing car. He got off at a station about twenty miles out of Omaha—near where the train had broken in two the night before. As he walked up the track he met a farmer whose property bordered on the right-of-way.

"Got four new hogs to-day," said the farmer.

"You don't say! What'd you pay for 'em?"

"Nothing! Donated!"

"By whom?"

"Don't know. Donor anonymous."

"Let's see 'em."

Cushman looked at the gift hogs. All four had chunks of flesh gouged out of their bulk, and were more or less bleeding. He tramped on thoughtfully to the next farmhouse, where the farmer remarked:

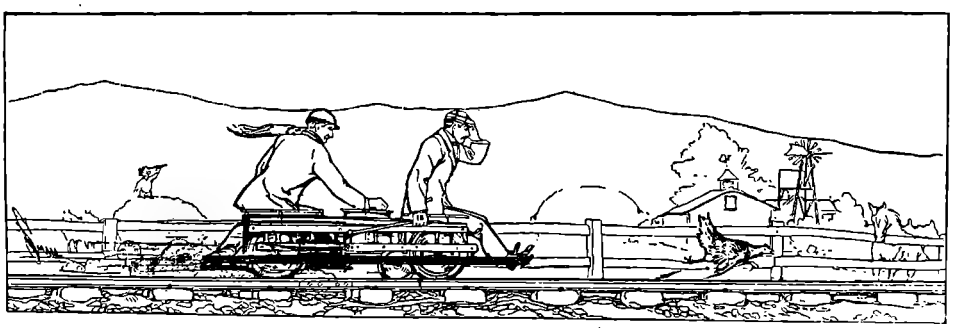
"Looks like folks don't want their own hogs no more. Some one made me a present of six this morning."

Cushman now tarried not nor paused in making a bee-line back to the railroad track. On the way he passed no less than a dozen hogs, all straying around in an aimless, homeless, uncertain manner.

Finally he came to a place where the railroad track ran through a cut. At the top of the embankment, at the edge of the cut, lay a car. In it were a lot of hogs, all dead. And the railroad tracks, where they ran through the cut, were fully four feet below the level on which the hog-car stood.

Cushman hurried back to Omaha, and said to his conductor: "Say, boss, I'm going to quit railroading. It's too full of the miraculous for me. Think of a hog-car cutting itself loose from a freight-train and jumping—*jumping!* I say—*four* feet, four whole feet *up* out of a cut, like a toad trained in a circus!

"I've seen a loaded hog-car that did that stunt. Seein's believin'! And hereafter I ain't pooh-poohin' miracles!"



WITHOUT LIGHTS.

BY J. AUBREY TYSON.

They Turn from the Dead to Find the Living's Gold.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE visits the general manager of the Chicago, St. Louis and Western Railroad, Andrew Warrington, with a letter from his father, who was an engineer on the engine Warrington fired. It is understood that when Fred has graduated, Warrington will place him. He now finds that he is unable to do so. Bonds of the value of half a million dollars have been stolen, and suspicion points toward Warrington's son. Warrington, senior, is suspicious of the motives of Montresor, who has gained the friendship of Joe Warrington, and apparently of Louise, Warrington's daughter. The old man gives the task of solving the disappearance of the bonds to Erskine. He is to work absolutely in the dark, receiving no recognition from Warrington, using any means he wishes. He is to take Louise to the opera that night, but Louise, suspecting him, has the coachman drive to Lincoln Park, and there Fred is assaulted by a man whom he believes to be Montresor. Erskine is walking on the lake shore, when he meets McGrane, the discharged coachman of the Warringtons, who is very loyal to Miss Warrington. Erskine succeeds in convincing him that he is Miss Warrington's friend, and the coachman agrees to work with him. Others arrive, and Erskine gathers that it is their intention to kill Warrington. He meets the young fellow, who agrees to confide in him, but as Erskine leads the way from the shore Joe Warrington is mortally stabbed. During his last moments he discloses to Erskine that the bonds are being expressed by Montresor to Tacoma, in a typewriter machine-box. Erskine and Barney decide to leave the city and follow up the box containing the bonds. They arrive at Wapita Falls. Barney sees Louise and her mother alighting from the train, and imparts this intelligence to Erskine, who, meanwhile, has discovered the box labeled for Tacoma. Securing tickets for the train on which this box has been shipped, he finds the two women on board, and visits them in their stateroom, where he tells them of Joe's death.

CHAPTER XIII.

A Leap Into Darkness.

LIKE a man in a trance, Erskine returned to his own section in the Pullman, where he sank stiffly in the seat opposite McGrane. The Irishman, looking at him curiously, was startled by his pallor and the dazed look in his eyes.

"Anything happened, sir?" McGrane asked, leaning forward and speaking anxiously.

By a gesture Erskine directed the Irishman to sit beside him. When McGrane did this, the Altoona man addressed him quietly:

"Barney, are you a drinking man?"

The face of the Irishman fell. "Why, I take my drop, sir," he answered sullenly.

"Did Mr. Warrington charge you with drunkenness on the night he dismissed you from his service?"

"When he taxed me with not reporting to him all the places I took Miss Warrington to, I answered him a bit sharply, and he said I had been drinkin', he supposed. I told him I hadn't had a drop that day, which was true, sir. Six months ago I made a bad break or two, but he forgave me those. No, sir, he didn't fire me for drinkin'."

Erskine nodded thoughtfully, and leaned back in his chair. The Irishman continued to regard him quizzically.

Began in the March Railroad Man's Magazine. Single Copies, 10 cents.

"Some one been knockin' me to you?" McGrane asked apprehensively.

"Some one has just told me that you had been discharged for drunkenness—that's all," Erskine explained.

The face of McGrane grew purple.

"And she said that to you—of me?" he muttered. Then, after a pause, he added: "And did you tell her that—that something happened after she saw her brother last?"

"Yes, but she does not believe me."

"But, surely, sir—"

Erskine laid a hand on the coachman's arm. "There—that will do, Barney," he replied, interrupting. "She will communicate with her father at once, and I dare say he will tell her all. Meantime, we have much to do. For the present the two ladies we have seen must go their way alone. Be careful to mention no more names."

"But we will save her—Miss—Miss—"

"Yes, Barney, we will save her if we can."

The Irishman, leaning forward, lapsed into moody silence. Erskine gazed out of the window. For more than an hour no words were exchanged between them; then from one end of the car came the voice of the porter, informing the passengers that dinner was ready.

The Irishman glanced at Erskine inquiringly. The Altoona man shook his head negatively.

"No, Barney, we must keep out of there to-night," he said.

As he spoke, Erskine drew out a paper lunch-box and passed it to McGrane, who was soon philosophically munching a ham sandwich.

In another hour twilight fell, and shortly afterward the train halted at Bernardville, the first stop in the State of Washington.

As the train stopped, a sudden thought seemed to strike Erskine, and he rose quickly; then made his way to the station platform. Looking now toward the other end of the car, he saw Louise Warrington and her mother leaving the train.

The fact that both ladies carried suitcases indicated that they had no intention of returning to the train. This led Erskine to infer that they purposed telegraphing to Andrew Warrington concerning Joseph, and would wait at Bernardville for a reply, boarding the Cascade Limited, which would be along a couple of hours later.

This action on their part appeared reasonable enough; and it was not improbable that, upon hearing from Andrew Warrington, they would return with as little delay as possible to Chicago. But there was another possibility to be feared. Their action in leaving the train at Bernardville might be part of a prearranged plan.

The Cascade Limited was due to stop at Bernardville in two hours. Would it bring Montresor?

If Louise and her mother joined Montresor, they would, of course, report to him the nature of the interview in the Pullman stateroom.

Their faith in the Englishman apparently was still unshaken. Assuming that Warrington did telegraph to them that Joseph had been murdered, what evidence had he to connect Montresor with the perpetration of the crime? The only witnesses to the assault upon the ill-fated young man were Erskine and McGrane, and these had made no report of the matter, either to the elder Warrington or the police.

More than this, would not Miss Warrington at once give public expression to her suspicion that her brother was killed by Erskine and McGrane, who mistook him for Montresor? A cold sweat broke out on Erskine's forehead, and, tottering like a drunkard, he returned to his seat in the car. There he found the Irishman, with his face at one of the windows, and scarcely able to restrain his excitement.

"You've seen 'em, sir?" he asked.

Erskine nodded. "Yes," he said.

"Well, they've left the train, and you ain't goin' to foller them?"

"No," Erskine muttered. "Haven't I told you that we have more serious work to do than to trail these women?"

The face of McGrane was now as white as Erskine's own, as he replied in a shaking voice:

"That's serious enough for me, sir; and, by Heaven, it's the work I'm goin' to do before I tackle any other. Montresor has done for Mr. Joseph; and if he's got any game on against Miss Warrington, Barney McGrane ain't the man to stand by and see him win it."

Erskine seized his arm. "What are you going to do, Barney?" he asked.

"I'm goin' to do what you say you ain't goin' to do. I'm goin' to trail the women; and you know, as I know, sir, that that there trail is goin' to lead me to Montresor."

Erskine's face grew harder, and there was an ominous flash in his eyes as he retorted:

"It will lead you to the gallows."

The Irishman nodded vigorously. "Aye, sir, that may be. I'll not stop at murder if—"

"You already are charged with murder."

McGrane stiffened suddenly and looked at Erskine with an expression in which incredulity and alarm were mingled.

"Already charged with murder?" he repeated wonderingly.

"Yes. Miss Warrington believes that you and I killed her brother, who, in the darkness, we mistook for Montresor."

The dazed look deepened in the Irishman's eyes.

"Now, sit down," Erskine commanded sharply.

They seated themselves together. McGrane's gaze was riveted on the face of his companion. Erskine glanced sharply around the car, fearful lest the gestures of the obstreperous Irishman had been observed by other passengers.

He saw that only four other persons were in the car, and that these were giving no attention to him or McGrane, whose words had been spoken quietly, despite his agitated manner.

"She can't believe that of me," the Irishman protested, shaking his head dubiously.

"She has said she does. It is for the purpose of communicating with her father that she has alighted here, and you forget that her father does not know the truth. We are the only persons who saw the tragedy, and we have the appearance of having fled from the city.

"That fact will be used against us. A word from Miss Warrington may result in our arrest before we have a chance to put up the fight we have come out here to make. We cannot succeed unless you keep your head and stop discussing these matters as we are doing now."

As the spirit of insubordination left McGrane, an expression of apprehension settled on his face.

"I don't understand it at all," he muttered penitently, "but I won't bother you with no more questions."

"That's better, Barney," Erskine answered wearily.

Five minutes later the train was again in motion. Erskine and McGrane sat in silence. The Irishman was sullen and, as the hours passed, it was apparent to the watchful young railroader that he was growing more and more ill at ease.

Erskine now began to appreciate the fact that he had erred in not giving his companion more of his confidence, and yet he knew that few opportunities had been afforded him for doing so. Railway stations and the seat of a sleeping-car were dangerous places for such explanations as he had to give; and, though he had confidence in the Irishman's courage, he was not altogether satisfied regarding his discretion.

Shortly before nine o'clock the porter asked Erskine if he was ready to have the berths of his section made up for the night. The Altoona man nodded, and he and McGrane made their way to the smoking compartment. There they found four of their fellow passengers playing cards.

Erskine and his companion watched the game in moody silence for several minutes, then they returned to their section. Here they found that the beds had been made up, and that the curtains had been drawn.

On the way to Wapiti Falls, McGrane had occupied the upper berth at night, and had removed only his coat, vest, necktie, collar, and shoes before retiring. He was now about to draw off his coat, when Erskine laid a restraining hand on one of his arms.

"No, Barney," the Altoona man said quietly. "Crawl in as you are, and wait."

The Irishman nodded sullenly; then, fully dressed, he climbed into the upper berth. Erskine glanced at his watch, stretched himself on the lower berth, and raised the shade that had been drawn over one of the windows. Leaning on one elbow, he continued to look out into the night.

The train, having passed through the

foot-hills, was now within the shades of the Cascades themselves. The night was clear; and by the light of the moon, which was in its first quarter, Erskine was able to see with considerable distinctness the outlines of the dark mountains which the train was passing.

At length the shriek of the locomotive whistle rose above the monotonous rumble of the wheels, and he became conscious of the fact that the speed of the train was abating. Moving cautiously, he slipped out of his berth and drew from beneath it the two suit-cases with which he and his companion had left Chicago. These he laid on his berth; then, once more, he peered out of the window.

From one end of the car came the call of the trainman:

"Two Rivers—Two Rivers!"

Erskine quickly raised the window through which he had been looking, then he thrust the suit-cases out into the night. This done, he lowered the window, crawled out of the berth, stood upright, and laid a hand on the shoulder of the recumbent McGrane.

The Irishman started up suddenly. "Rear platform, Barney — be quick!" Erskine whispered sharply.

In another moment the Irishman was on the floor beside him. Between the curtained sections Erskine, moving rapidly, led the way to the rear platform of the car. Arriving there, the two men found themselves alone.

"We've got to jump it," Erskine muttered. "The train is slowing down, and there is no danger if you leap clear of it. When I open the door, get out at once. I'll be right after you."

The platforms of the train were vestibuled, but in a moment Erskine had the door open.

"Go!" he muttered.

The Irishman swayed a little as he descended the steps. On the bottom step he paused for a second or two, then he leaped. Erskine followed him.

CHAPTER XIV.

A New Peril.

THOUGH Erskine had taken a desperate chance when he decided that he and McGrane should leap from a moving train, in the darkness, and at a place which he never had seen in daylight, he found luck was with him. His feet landed on a low, gently sloping embankment of sand and gravel; and, though he rolled over a couple of times before he succeeded in getting to his knees, his injuries proved to be no more serious than a few slight bruises and scratches.

He quickly scrambled up the embankment to the track, and there paused and listened. All was still; and, owing to the fact that the moon was obscured by a mountain which shadowed the track, he was able to see only a few paces away from him. A low whistle, however, soon elicited a growl from a point about a hundred feet distant.

Erskine set off at an easy trot in that direction, and in a moment he came in sight of McGrane, who was limping toward him along the track.

"Are you hurt, McGrane?" Erskine asked anxiously.

"I'll tell ye better, sir, when I find all me pieces," the Irishman grumbled. "'Twasn't till you whistled that I began to know the difference between Barney McGrane and a busted gravel-car. I barked a shin and twisted a shoulder; but there's no real damage done, I guess. And now which way is which, sir?"

"We'll have to walk back after our suit-cases, which I threw out of the window before we jumped," Erskine explained.

"Is some one after us?" the Irishman asked apprehensively.

"I'm afraid so, Barney," the Altoona man replied gloomily. "Several hours have passed since Miss Warrington alighted at Bernardville, and by this time she doubtless has had from her father a telegram informing her of her brother's murder.

"If she carries out the threat that she made to me, she probably has telegraphed on to Two Rivers that the murderers of Joseph Warrington are on the West Coast Express, and, in that case, the train will be searched. We are well out of it, but must have a care how we pass the station—for pass it we must—and we can't get by it too quickly."

"Have we got to get to the other side of it?"

"Yes. When it is found that we have jumped the train, a search doubtless will be made for us in this direction. Two Rivers lies at the entrance to a narrow defile between two mountains, and there is no way around it. We must be on the other side within twenty minutes."

Without further ado, Erskine again broke into a trot in the direction of the place at which he had thrown out the two suit-cases. McGrane followed him more slowly.

In about three minutes Erskine came upon one of the cases, and a short distance beyond it he found the other. Carrying these, he retraced his steps until he met McGrane.

The Irishman now had recovered, in some degree, from the lameness that had resulted from his fall, and, relieving Erskine of one of the suit-cases, he trotted along at his heels.

In the distance the lights of Two Rivers were plainly visible, and the end lights of the West Coast Express were seen to be in front of the station. Erskine rightly inferred that had it not been for the fact that it was necessary for the locomotive to take water at this point, the train would not have been scheduled to stop in such a sparsely settled spot.

Proceeding quickly, the two men came at last to a bridge which spanned one of the two mountain streams which were responsible for the name of the town. This was narrow, and was soon crossed. Erskine and his companion were scarcely on the farther side of it, however, when the train which had brought them from Wapiti-Falls was seen to be again in motion. In a couple of minutes its end lights had disappeared from view.

The two men now slackened their pace, and as they drew nearer the cluster of lights which marked the location of the station, they saw that the town was on the right of the track, and that on the left of the railway there was a steep slope to a shallow but swiftly running river. Down this slope Erskine soon led the way, and, stumbling among the stones that lay along the margin of the stream, the two men continued along until they were well past the station.

At length Erskine halted, put down his suit-case, and listened. Save the slow puffing of a stationary locomotive somewhere on the embankment above them, all was still.

Erskine turned to his companion. "Well, Barney, for the present we are safe enough, I guess," he said. "The train wasn't here longer than five or six minutes, so it looks to me as if no attempt has yet been made to find us. In this case, a search will be made at the next stop."

"Miss Warrington ain't goin' to charge us with murder!" McGrane said doggedly.

"She intimated that she would, and we must take no chances," returned Erskine.

There was a pause; then McGrane asked: "And did you leave the train just because you was afraid of gettin' arrested?"

Though the Irishman had tried to address his companion respectfully, there was something in his tone that plainly indicated that his employer no longer enjoyed his confidence.

"No," Erskine answered quietly. "It was here that I planned to leave the train. That plan was made before we left Wapiti Falls."

"Well, we don't seem to be any nearer Montresor, for all the plannin' that you've done," grumbled the Irishman, who again manifested a tendency to wax insubordinate.

"Montresor is getting nearer to us every minute, and, if we do not make haste, he will be on us before we are ready for him," Erskine muttered.

McGrane's spirit rose. "We are to meet him here?" he asked.

"No," Erskine answered sharply; "and unless we are going to play into his hands, we must avoid him for the next four days, at least. If we are recognized by Montresor, or any one else who has seen us before, while we are engaged in the work which is cut out for us to-night, we will have a still more serious charge confronting us than that which makes us responsible for the murder of Joseph Warrington."

"Eh!" exclaimed the bewildered Irishman. "And what charge is that?"

"Train-robbery," replied Erskine gravely.

"Train-robbery!" muttered McGrane.

"In the name of Heaven, sir, are ye mad? We ain't robbed no train any more than we killed Mr. Joseph."

"But we will," said Erskine confidently. "Before we go farther, I will make the situation a little clearer to you. The Cascade Limited, the fastest flier this side of the Mississippi, will pass Two Rivers in about an hour from now. On that train, which left Chicago after we left it, Montresor doubtless is a passenger.

"With him, for the present, we have nothing to do. In the express-car of that train, however, is the box which I pointed out to you in the baggage-room at Wapiti Falls.

"That box contains papers which were responsible for the murder of young Warrington, who, dying, believed that I would restore those papers to their rightful owner. When those papers are returned to the place from which they were stolen by—by Montresor, we will strike at the Englishman, but not before."

"Then me and you must hold up the flier?" McGrane asked thoughtfully.

"Yes."

"While it's passin' Two Rivers?"

"No. When the flier gets to Two Rivers we must be ten miles to the west of here, near the entrance to the Dumb-bell tunnel. The Dumb-bell consists of two round mountains, joined by a straight ridge which gives to the combination the form of a dumb-bell. The tunnel runs through the ridge, and before the flier enters the tunnel we must have the box we are after."

"But how are we to go those ten miles, sir?" asked the Irishman, whose manner had become respectful again.

"Somewhere along here we will find a section-house—a place where laborers who work on this section of the line keep their tools and hand-car. We must get the hand-car. As we approached the town, I saw that there was no section-house on the other side; so, I dare say, we are not far from it now. Now, as we seem to have cleared the town, let's climb the embankment again."

The two men picked up the suit-cases which they had set down, and then they proceeded to work their way up the embankment to the track. Arriving there, Erskine halted and looked around him cautiously. The town lay on his right. On his left he saw a small building beside the track.

With a low exclamation of satisfaction, he started toward it. McGrane kept close at his heels.

As Erskine had surmised, the building proved to be the section-house of which he was in search. Beside it, on a little runway, was a hand-car, secured to a post by a padlock and chain. Erskine knelt down beside the chain, and for a few minutes his companion heard the scraping of a file.

"Ye were all ready with the tools for the job," muttered the Irishman approvingly.

There was a great deal connected with this affair that was a mystery to McGrane, but from time to time the conviction had been forced upon him that the leader he had been following so blindly really was working out a carefully formulated plan. Now and then, however, a suspicion would enter the Irishman's mind that Erskine was working in his own interest, rather than in the interest of the Warringtons. So far as McGrane was concerned, his interest centered in the capture of Montresor and the safe return of Louise Warrington to her Chicago home.

"All right, Barney," said Erskine, rising.

"Is she loose, sir?" asked the Irishman.

"Yes. Now help me to get it on the track."

In a couple of minutes the hand-car had been run out to the track, and on it Erskine placed the two suit-cases. This done, the two men mounted to the platform, and Erskine bade his companion take hold one of the bars.

The young railroad man grasped the other, and the westward journey was continued. Both Erskine and McGrane were men of considerably more than ordinary strength, and as they bent to their task the car moved onward with rapidly accelerating speed.

For more than a mile beyond the town the grade was fairly level; then it began to rise gradually, and the speed of the car began to abate, despite the increasing energy the two men were putting into their work. At length, however, Erskine,

glancing anxiously ahead, saw that the end of the grade had been reached, and that they were approaching a decline, steeper than the one they had just ascended. For about a quarter of a mile the track lay straight ahead of them, then it disappeared at a curve around the mountainside.

"Let go the bar, but get a good grip on the car," called Erskine to McGrane as he saw what was before them.

The Irishman did as he was directed, then cast a glance over his shoulder.

"She'll go by herself?" he asked as he looked down the grade.

"Faster than we ever could drive her," Erskine answered; then, craning his neck to get a better view of the track, he added: "Hold fast, for your life, Barney!"

A sinking feeling now began to come over McGrane as the hand-car, increasing its speed at every yard, dipped at a sharper angle and went clattering down the grade. Both men lowered their heads and grasped more firmly the metal-work below the rapidly rising and falling handle-bars.

The flying car rounded the curve with a jolt that fairly took away the breath of the clinging men, and then shot downward on a grade that was even steeper than the one above the curve. Down, down it flew along a winding course—clattering and bounding in a manner that made the swaying Irishman feel as if he was mounted on a bucking bronco.

Erskine, with set teeth, was peering ahead of him with anxious eyes when there came to his ears a sound that brought his heart to his throat and caused a cold perspiration to issue from his pores.

It was the whistle of an approaching train!

CHAPTER XV.

The Brink of Disaster.

FOR a moment Erskine's wits forsook him. If the whistle he had heard was that of an approaching train, he felt that he and his companion were doomed.

The extension of the Chicago, St. Louis and Western from Wapiti Falls to Tacoma had been constructed only a few years before, and between Two Rivers and the Dumb-bell a single track had been regarded as sufficient for its present needs.

A careful study of his time-table had assured Erskine that no east-bound passenger-train was due at Two Rivers for the next five hours, and he had reasoned that no freight would be able to pass the West Coast Express, which had left Two Rivers only a few minutes before.

The whistle which he had heard seemed to be too near to be that of the West Coast Express, which, speeding on ahead of the Cascade flier, and with the grades in its favor, must now be five or six miles distant. Was it possible that the express, meeting with some accident or obstruction, had stopped, and was just getting under way again? Or, back here among the mountains, was there a siding on which a freight had lain to await the passage of the hurrying passenger-train?

The whistle, apparently, failed to disturb McGrane, who had no other thought than to retain his grip on the clattering, jolting and swiftly speeding hand-car. Erskine, however, listened intently. The whistle reached his ears again.

This time there was no mistaking its significance. It was the signal of a freight locomotive calling for brakes!

Gritting his teeth, Erskine looked around him wildly. To jump from the rushing hand-car meant instant death, and yet to remain on it for another five minutes would seem to be scarcely less disastrous.

Erskine, who thus far had thrown prudence to the winds in his attempt to get to his destination as speedily as possible, now reached for the lever which controlled the brakes of the hand-car. Drawing this back, he braced his feet against the steel base of the handle-bars. Even amid the clatter of the wheels he heard the brake-shoe swish against the swiftly revolving metal disks beneath the car; but there was no accompanying diminution of speed.

And now the Irishman, suddenly becoming aware of the strenuous efforts which Erskine was making, took alarm.

"Something wrong, sir?" he gasped, as the car, taking another curve, almost swung from the track.

"Hold on—till I call—then jump!" cried Erskine brokenly.

"The car will do that, I'm thinkin'," the Irishman retorted.

"Let us hope to Heaven it does. There is a train ahead of us, and—"

He was interrupted by the prolonged shriek of a locomotive. All doubt was now removed from the mind of the man who was desperately straining at the brake-lever.

The unseen locomotive was rapidly drawing nearer. A new idea now entered Erskine's mind.

"Here, Barney—here!" he called.

In a moment the Irishman was beside him.

"Get hold of this lever and brace yourself—so," the Altoona man directed.

McGrane understood, and acted promptly.

Erskine, rising on one knee, seized one of the leaping handle-bars. This was of wood, and Erskine had observed that it lay loosely in the rings that held it. In a second he had it free.

"Now, look out for yourself, Barney," he shouted as he crawled to the front of the car.

As he glanced ahead of him he saw the faint glow of an advancing light. Still gripping the stout wooden bar, he leaned over the forward end of the car. With his right hand he clung to the projecting wooden handle which railway men use in getting a hand-car on the track. With his left hand he dropped the wooden bar across one of the rails.

What happened in the course of the next two minutes neither of the men ever knew. Erskine did not lose consciousness, but his sensations were those of a strong swimmer who suddenly finds himself in the grip of a rock-pronged whirlpool.

Bruised, bleeding, and unable to draw breath, he rose to his knees. A thousand lights seemed to be gleaming before his eyes, and a prolonged sound like the roll of distant thunder was in his ears.

In another moment he was breathing again—but with considerable difficulty—and he knew that the sound which resembled thunder was that made by the moving wheels of a train of freight-cars which were slowly passing in the gloom.

With a rapidly beating heart Erskine staggered to his feet. He was now overcome by a dread that the train would stop—that the engineer had run down the hand-car, and would halt in order to learn the extent of the injuries of the victims.

Too shaken and lame to be able to fly from the spot, Erskine prayed that he might be left alone. All too slowly the train moved on; but it did not stop, and soon the end lights of the caboose were flashing in Erskine's eyes as he crouched again beside the track.

Farther and farther away moved the lights, but it was not until they disappeared around a distant curve that he ventured to rise to his feet and look around him.

Gasping, and with his temples throbbing, Erskine staggered up the embankment to the track. Halting between the rails, he listened and looked searchingly from right to left. All was still. In the darkness he was unable to see anything of McGrane or the hand-car.

The game which he had been playing seemed lost to him now. Each moment was valuable, but without his companion and his lost suit-case he could do nothing.

For several minutes he stood motionless and silent; then, raising his voice, he called hoarsely:

"Barney!"

There was no answer, and, a prey to feelings of despair, Erskine tottered weakly along the track in the direction in which he had seen the lights of the freight disappear.

He ran on for nearly a hundred yards without seeing any sign of his missing companion or the hand-car; then the idea occurred to him to look for them in the other direction.

As he turned, he saw that the track appeared to be neither up nor down grade. His strength was coming back to him now, and he moved more quickly, calling to McGrane as he ran.

At length, thrilling with surprise and satisfaction, he heard a voice reply to him.

"Here!" it cried.

A few moments later he came to the Irishman, who was standing ruefully beside the track.

"That was a narrow squeak, sir," said McGrane mournfully.

"Have you found the car?" asked Erskine.

"Not me, sir," the Irishman replied.

"One of the suit-cases landed on me as I rolled down the embankment, and I've got that here; but may the devil take me if I ever want to see the likes of that summersettin' car again!"

"Which suit-case have you got?" Erskine demanded, snatching it from him impatiently. Then, as he stooped to open it, he added: "Find the other one."

McGrane turned away, grumbling.

In a moment Erskine had the suit-case open. As he thrust a hand among its contents, he promptly identified it as his own. Scarcely had he closed it when he heard the voice of McGrane.

"I've got it, sir."

"The other suit-case?" Erskine called.

"The hand-car."

"Never mind the car," cried Erskine. "Get the other suit-case if you can."

He hurried on to the place from which the voice of his companion had come.

There he found the hand-car, half-way down the embankment. McGrane, however, had disappeared; but Erskine heard him call: "I've got it."

When Erskine found the Irishman again, he struck a match and looked at his watch.

"It's all right, Barney," he said, with a note of jubilation in his voice. "We have twenty minutes to spare. There's another up grade ahead of us, and in the course of the next quarter of an hour we must get as near the top of it as we can.

With a lighter heart, he set off at a trot, with his companion close at his heels.

Maintaining a steady gait for the next ten minutes, Erskine at length found himself near the top of the grade. There he stopped and listened.

No sound broke the stillness of the solitude. The Irishman had disappeared.

Erskine called his name.

"Coming," shouted McGrane from a point well down the grade.

Erskine stooped beside the track and opened the suit-case he had been carrying.

From this he took two small tin cylinders, two cartridge-belts and revolvers, and two black masks.

(To be continued.)

DOUBLE-TRACK THE SANTE FE.

If This Rumor Materializes It Will Practically Mean a New Transcontinental Railroad.

IF the floating rumors, which have been humming around the local general offices of the Santa Fe are true, the entire main line of the Atchison, Topeka and Santa Fe from Chicago to Los Angeles will be double-tracked. The rumors are being followed up with plans preparatory to the mammoth undertaking.

To double track the Santa Fe means building a new transcontinental railway over 1,600 miles in length. It will also mean the first attempt of this kind ever contemplated or thought of in railway circles. It will mean a train service from coast to coast that will rival the dreams of the magnates for years. Furthermore, it will mean an expenditure of millions of dollars both in the active construction, and in the purchase of equipment and terminal facilities.

At the present time the Santa Fe is severely taxed for the care of passenger and freight traffic. The traffic between southern California and the East is enormous. The single track cannot stand the pressure, and even with the careful and experienced ingenuity of high-paid train despatchers, the road officials are not able to put the trains over the road as the traffic demands. There is only one way to solve this problem—and that is another pair of steel rails running alongside the present pair.

At this time the Santa Fe has several stretches of double-track in good use—a use that will serve as a connecting link of single lines. For instance, from Albuquerque to Winslow, the road now has a double-track, one being the main line, and the other the Belen cut-off. This can easily be improved into a double main line. From Chicago to Newton, a distance of 600 miles, the road is practically all double-tracked. Then there are various other short spurts which have been doubled on account of the congestion at those points.

The Railroad Man's Brain Teasers.

Puzzling Problems that Will Sharpen the Mind and, Perhaps, Help You In Your Work.

AMONG a dozen others from various parts of the country, we have received the following from Mr. Niles Searls, of San Francisco:

The X. Y. Z. Company was trying out a new freight-engine on a perfectly straight piece of double-track road. There was a string of cars attached, which made the train measure exactly one mile, from front of engine to rear of caboose. The train was crawling along at a constant speed. The head brakeman started from the front end of the train, on a speeder, and rode to the rear end; turned around and came back to the front end, arriving just as the train had moved its own length. How far did the brakeman travel? All speeds supposed to be constant, and no time lost in making the turn.

Also this one from Mr. H. R. Middlebrook, Tacoma Park, D. C.:

Assume a steel band to be shrunk about the surface of the earth at the equator (circumference 25,000 miles). Cut this band and insert 36 inches more, and reweld it, thus making its length 25,000 miles, 36 inches. How far away from the surface of the earth will it be all the way around?

The answers will be published in our July issue.

Answer to May Puzzle.

12.58 P.M. Second floor. Nos. 1, 2, and 3, going up; No. 4, going down.

We Want Some New Puzzles.

WE want some new puzzles, boys, and we don't know how we can get them unless you send them to us. We are so busy keeping on the main line and watching the lubricator and the gage that we hardly have time to think out brain teasers—and, perhaps, if we did you would only give us the merry ha! ha!

So it's up to you, boys. Put on your brakes for a few moments, rest your sand dome in your left hand, and with the right dash off something that will make us all sit up.

BUT—don't send in any teasers that *cannot* be solved, and don't send in any without the correct solution.

Who will be the first in?

The Sunny Side of the Track.

What the Busy Joke-Smiths of Our Esteemed Contemporaries Have Turned Out Lately in the Hope of Making Us Laugh.

A POLYGAMOUS DIRECTOR.

ONE of a party left his corner seat in an already crowded railway-car to go in search of something to eat, leaving a rug to reserve his place. Returning he found that, in spite of the rug and the protests of his fellow passengers, the seat had been usurped by a well-dressed woman. With flashing eyes she turned upon him:

"Do you know, sir, that I am one of the directors' wives?"

"Madam," he replied, "were you the director's only wife I should still protest."—*Chicago Socialist.*

A LARGE PARTY.

PETER F. DAILEY, the comedian, was a man of imposing personal dimensions, a fact he once made use of to the disgust of a railroad conductor.

Delayed at a small station, where the through train for New York would not stop for the next twenty-four hours, he wired the superintendent at the station below:

"Will you stop at Lonelyville for large party at 9 P.M.?"

The answer came: "Yes, will stop train."

When the express pulled in, Mr. Dailey started to board a car.

"Where is the large party we stopped for?" inquired the conductor.

"I am the large party," said Mr. Dailey, with dignity.—*Young's Magazine.*

HIGH ENOUGH.

ONE Saturday afternoon at Main office, Miss Moon "got" a subscriber who had thrown his fury into the third speed.

At first he was unwilling to talk. He wanted some one higher in authority. Miss Moon explained that he could reach no higher on Saturday afternoon.

"Well, who are you?"

She told him she was the assistant chief operator.

"But what is your name?"

She told him she was Miss Moon.

He paused, almost reminiscently.

"Moon—Moon—Moon," he repeated in a musical cadence. "Well, I guess that's high enough for me."—*Operating Bulletin.*

HER DISPOSITION.

A COW was killed on an Illinois railroad, and a section-boss who had just been promoted, made the report. He told in the proper spaces what train killed the animal and under what condition it was done. Then he came to a line: "Disposition. . . ."

"Well," said he, scratching his head, "I'll be hanged if I'm sure about that, but being's she's a cow, I think I can guess at it."

So he filled out the line, which, when it reached the general office, read: "Disposition, kind and gentle."—*International Railway Journal.*

SATISFIED HIS CURIOSITY.

"AS I pen these lines," wrote the traveling man who was scribbling a letter to his wife while the train was going at the rate of fifty miles an hour, "a long-nosed, squint-eyed, rubber-necked, putty-faced Algerine, with an alcoholic breath and the manners of a Hottentot, is looking over my shoulder, and—"

A snort of rage interrupted him.

He turned quickly, but the man in the seat behind him, with gleaming eyes, compressed lips, and a fiery red face, was deeply absorbed in a newspaper.—*Exchange.*

THE CALL.

LADY (formerly an operator)—"Porter, why didn't you call me as I instructed you?"

Sleeping-Car Porter—"I did, ma'am; sho's yo' bo'n, I did. I sade, 'Seven-thirty, ma'am,' an' yo' sade, 'Line's outa ohder.'"—*Toledo Blade.*

ONE ON THE FOLDER.

"THIS is a sad case," said the asylum attendant, pausing before a padded cell. "There is no hope for the patient whatever."

"What's the trouble with him?" asked the visitor.

"He thinks he understands a railroad time-table."—*Milwaukee Sentinel.*

THEIR BELIEFS.

THE two men who had been sitting near the door of the car became engaged in an animated controversy, and their loud voices attracted the attention of all the other passengers. Suddenly one of them rose up and said:

"Ladies and gentlemen: I appeal to you to decide a disputed point. My friend here insists that not more than three persons out of five believe they have souls. I take a more cheerful view of humanity than that. Will all of you who believe you have souls raise your right hands?"

Every right hand in the car went up.

"Thank you," he said, with a smile. "Keep them up just a moment. Now, all of you who believe in a hereafter please raise your left hand also?"

Every left hand in the car went up.

"Thank you again," he said. "Now, while all of you have your hands raised," he continued, drawing a pair of revolvers and leveling them, "my friend here will go down the aisle and relieve you of whatever valuables you may happen to have."—*Express Gazette.*

JUST ONE MORE KISS.

A DEAR old citizen went to the cars the other day to see his daughter off on a journey. Securing her a seat, he passed out of the car and went around to the car-window to say a last parting word.

While he was leaving the car the daughter crossed the aisle to speak to a friend, and at the same time a grim old maid took the seat and moved up to the window.

Unaware of the change, the old gentleman hurriedly put his head up to the window and said: "One more kiss, pet."

In another instant the point of a cotton umbrella was thrust from the window, followed by the wrathful injunction: "Scat, you gray-headed wretch!"—*Detroit Trade.*

BEYOND PERSUASION.

A GERMAN traveler who tried to pass a meal ticket on the train was told by the conductor that he would have to pay the regular fare of thirty-five cents. The German argued and refused to pay more than twenty-five cents, whereupon the conductor stopped the train and put him off.

In a twinkling the traveler ran ahead of the engine and started to walk on the track. The engineer blew his whistle, but the irate German turned, shook his fist and called out:

"You can vissle all you want to. I won't come pack."—*Eastern Laborer.*

HIS BEGINNING.

"YOU say you know nothing at all about our railroad?" said the official.

"Nothing whatever," answered the applicant.

"Well, I guess we'll put you in the bureau of information and let the traveling public educate you."—*Brass Buttons.*

INFANT DIPLOMACY.

A TALL man, impatiently pacing the platform of a wayside station, accosted a red-haired boy of about twelve.

"S-s-say," he said, "d-d-do y-you know ha-ha-how late the train is?"

The boy grinned, but made no reply. The man stuttered out something about red-headed kids in general and passed into the station.

A stranger, overhearing the one-sided conversation, asked the boy why he hadn't answered the big man.

"D-d-d'ye wanter see me g-g-get me fa-fa-face punched?" stammered the boy. "D-d-dat big g-g-guy'd t'ink I was mo-mo-mocking him."—*Everybody's Magazine.*

CORRECTED.

A DRUMMER who makes frequent trips to the West is on friendly terms with the porter of a sleeper named Lawrence Lee.

"Well, Lawrence," announced the salesman gleefully, "I have good news for you. We've had a birth in our family—twins, by George!"

"Dat am no birth, sir," said Lawrence. "Dat's a section."—*Life.*

ON THE EDITORIAL CARPET.

This Is Where We Gather in the Hut, Boys, Tell Our Troubles, Listen to Yours, and Sing a Few Old Songs.

WHEN you get the July number you had better handle it with rubber gloves. It will be a live wire, a third rail, a hot throttle valve, and an inspiration to the community. It will slip down the line with the easy grace of an engine coasting down a steep grade, and the power of a compound pulling a string of loads to the summit.

In the department of fiction we shall have Robert F. Creel, Emmet F. Harte, Horace H. Herr, Robert Fulkerson Hoffman, Augustus Wittfeld, and some others who are not as well known to our readers but who ably live up to the standard set by this galaxy of stars.

Mr. Creel's stories have always body in them. He is skilful in portraying the deep passions and feelings of human beings; sometimes he is unmerciful and grim. This time we have caught him in a softer mood, however, and his story has the gentle pathos of a man whose feelings are true, and fine.

Our old friend, Emmet F. Harte, switches in again with an account of how Honk purified the sacred precincts of Valhalla when they were trespassed upon and tainted by the presence of certain bad men.

Mr. Hoffman swings aboard with a story in which he is at his best in the use of that fine psychological perception which is his chief characteristic. Mr. Wittfeld is as funny as ever, and Mr. Herr's is a real Fourth-of-July railroad story with railroad men playing baseball.

J. E. Smith will continue his "Observations of a Country Station-Agent," and that is all that need be said about this interesting humorist of the rail.

Other articles will embrace a story of the largest terminal in the world, the new Grand Central Station in New York, which embodies one of the most remarkable engineering feats in the history of station construction.

We shall have a story of Theodore Judah, the real pioneer of the Union Pacific, and Mr. Rogers's fourth article in his "Help for Men Who Help Themselves" series, the subject of which will be "The Master Mechanic."

We shall have some stories about making up lost time. Gilson Willets's second instalment of his "Ten Thousand Miles By Rail" series will appear and will live up to the reputation the writer has established for his work.

In short, every bearing will be well oiled and packed, there will be no hot boxes, broken flanges, leaking tubes, hammering pistons, or broken drawheads. Be on the line.

Whistling post for July!

FREQUENT REVOLUTIONIZING.

RAILROAD men are not a very panicky crowd. The exigencies of daily life and duty are such as to give them poise and self-control.

But no man can quietly contemplate a sudden revolution of the business which is his means of livelihood without some qualms, and those veracious chroniclers, the Sunday newspapers, are always doing their best to convince the railroad man that his living is likely to slip from his fingers because of the invention of some wonder-worker by the aid of which trainmen will be dispensed with and engineers will be unknown. If somebody invents a new beetle-trap it is proven that through some manifestation of the law of gravitation railroads will soon be constructed on an inspired plan which will entirely eliminate the necessity for track, rails, road-bed, cars, employees, and traffic, and that if this does not happen, then something else will, equally mysterious and equally revolutionizing.

A little while ago the electric engine was going to supplant the steam locomotive, and, still later, an eminent gentleman was reported to hold the destiny of railroads and a gyroscope in the hollow of his hand. Railroad men who like to feel two rails under their wheels need not yet begin to fear the onward march of this much-heralded invention.

Its most wonderful feats are as yet the ingenious imaginings of Sunday supplement artists, and, although we all recognize the

high standing and genius of Mr. Brennan, we who know anything of conditions, know the difficulties that will have to be cleared away before his invention does any revolutionizing beyond suburban passenger traffic.

An editorial in the New York *Tribune,* calling attention to the criticism of an engineering correspondent of the London *Times,* serves a useful purpose. The *Tribune* says:

"The opinion is expressed that concentration of the load upon one line of rails would demand track construction costing more than that now in vogue. Properly to support the rails, the writer for *The Times* believes, something besides cross-ties would be needed.

"It would not be feasible, he says, to use twice as many ties of half the customary length, because there would not be room enough left properly to pack gravel between them. Piles or concrete would give satisfactory service, it is thought, but they would be too expensive.

"So original is the method he adopts for keeping a car or train upright on a single rail that the merits and demerits of his system, as a whole, should be subjected to rigid scrutiny. Investors are likely to let it severely alone until the economy, safety, and feasibility of it are amply demonstrated.

"Though a car of full size was recently exhibited in England, the questions just raised have apparently not been answered. What is now needed is a bit of experimental road, on which a car or train can be operated at 150 or 200 miles an hour. For a really instructive test of this kind the world may be obliged to wait for years."

Apropos of this subject, Mr. William Freyne, of Jerome, Arizona, very kindly calls our attention to an error which crept into our April issue, unwittingly. We referred to the inventor of the gyroscope, Mr. Louis Brennan, as an Englishman, when, in fact, he was born in Castlebar, County Mayo, Ireland. It was farthest from our intention to deprive the public of the correct knowledge of Mr. Brennan's birthplace, or his illustrious country from any glory it may win from his marvelous achievement.

More power to him!

A MILLION MILES.

UNDER this head, in the April number, we took a brief glance at the long, honorable, and efficient career of Engineer A. G. Reynolds, the engineer of the fast mail train that ran into an extra coal-train on the Lake Shore and Michigan Southern, a short time ago. We believed that, of living people, the chief sufferer from the wreck was Engineer Reynolds, who was making an extra run after he had become eligible for a pension.

It was to be his last run, and it was his first disaster. We expressed the hope that this fine veteran would not be deprived of his well-earned rest and honor by this trick of Fate, and we are happy to say that our hope has been fulfilled.

Before our magazine had issued from the press we learned that the company had decided that Engineer Reynolds's unfortunate accident did not in any way affect his eligibility for a pension, and that, although his record had been marred by the misfortune, he still had the respect and admiration, as well as the sympathy of all his associates and superiors.

He has our hearty congratulations and our kindest wishes.

A NEW RULE AND AN OLD SONG.

THIS paragraph is about songs. In the first place we are going to violate one of our own rules, and in the second place we are going to make a new rule just by way of compensation.

The rule we are going to violate is one that has been in force ever since we started running songs in this department, namely, that we would not print one song twice. We have of late received so many requests for "The Little Red Caboose Behind the Train," that, although we published it in the October, 1908, number, we are going to reprint it here in order to satisfy a popular demand. The song is sung to the tune of "The Little Old Log Cabin in the Lane."

Now for our new rule. It is not really a new one, but it is one that has been in abeyance for so long that it seems like a new one. We are asked for so many songs that unless we limit the type of songs to be given we shall find ourselves without space in this department for our own burning thoughts. The main line is already crowded, and the despatcher has some difficulty in keeping the train-sheet unkinked and the congested traffic moving without blockade.

Our readers ask us for all kinds of things —from Tennyson's last poem to "The Face on the Bar-room Floor," and if we could we would like to meet all these requests fully. But we cannot, and henceforth we shall have to limit our poetic obligations in this department to purely railroad poems.

One of our friends asks us for "The Bridge of Sighs," but as this bridge was never laid with metals we must refer him to the library of his own town. As we remember it the poem was written by Tom Hood.

Now, to redeem our first promise, here is "The Little Red Caboose":

THE LITTLE RED CABOOSE.

Now I am a jolly railroad man and braking is my trade.
I work upon the road both day and night,
Turning switches, making flies, as along the road we go,
And see that all the train is made up right.
We are always ready when we are called to go,
It's whether in the sunshine or the rain,
And a jolly crew you'll always find if you will go and see
In that little red caboose behind the train.

CHORUS.

Then, here's luck to all the boys that ride upon the cars,
May happiness to them always remain.
The angels, they will watch o'er them when they lie down to sleep
In that little red caboose behind the train.

We hang a red light on each side, another on behind,
As day goes by and night comes stealing on,
And the boy that rides ahead, you bet, he keeps it in his mind,
That all the train behind is coming along.
And when we're near the station we're startled from our thoughts
By the sound of the whistle's shrieking scream;
We skin out on the hurricane deck, while the con winds up the wheel
Of the little red caboose behind the train.

Now this little car I speak of is more precious and more dear
Than all the coaches on the railroad line.
The reason why I say so is because it is our home,
And we always keep it in the neatest style.
Although we have no fashion lights, or velvet-cushioned seats,
Still we always keep it very neat and clean.
And many an honest heart beats there, beneath the rusty roof
Of that little red caboose behind the train.

OUR FRIEND "VERY ENGLISH."

JUST as we were thinking that life was very dull, monotonous, and commonplace, we got a letter from an old friend. His name, or rather his *nom de plume,* all our readers will probably recognize. It is "Very English."

"Very English" is a young man of whom we are very fond, because he is always amusing. Last time he wrote us he assailed us with a list of questions which we, being of a suspicious nature, believed to be mere traps into which "Very English" wished to lead our unwary feet.

Still, we answered most of our friend's cross-questionings, and thereby evidently earned his esteem. This time he writes to us almost kindly, but is still bent upon having our scalp, or the scalps of the American railroads in general.

It seems that "Very English" is somewhat of a railroad man himself, and that although his experience has been limited to such places as Africa, South America, England, and other places on the outskirts of civilization, we must extend to him the hand of a brother, or, if he wants our scalp, why, by all means let him have it.

"Very English" asks us, concealing one hand behind his back, in which we feel sure he holds a life-preserver, "Let it be granted that you have a single track. Two goods-trains, 'Q' and 'R' are going in opposite directions, with orders to cross each other at a siding. In this land of the free, if the engine-driver of 'Q' thinks that he might 'make' the next siding before meeting 'R,' does he go ahead and try, notwithstanding his orders? Can't I 'hang one' on America in this?"

"Very," you can hang on us just exactly what you like, but there are only two things, so far as we know, which would prevent an "engine-driver" from doing what you say.

The first is his own sanity, and the second one, the wholesome fear of a large and commodious "can," which would be very probably awaiting him at the end of his run. Perhaps you don't know what a "can" is, but it would be something quite sufficient for an engineer who bucked orders so flagrantly.

Of course, "Very," you realize that we, personally, can't be responsible for every fool in the business. Some men think that they should take no more notice of a Book of Rules than the average man does of the Ten Commandments, but that is not so, really. Their attitude does not alter the fact that the Book of Rules exists, and that there are severe penalties for disobedience.

After handing us this little jolt, "Very English" sends us a bouquet, which we must print in full.

"Your magazine compares favorably with those published in England, but being English, it would be almost treason to say that you can nearly equal anything made in the Old Country, and 'compares favorably' is the best that you can expect. Don't you think that my English has improved? Honestly, I had an expensive education—in England."

Yes, "Very," your English has decidedly improved under our careful tuition, but even yet it is rather bad. You will notice that in the first sentence of this last part of your letter, which we quoted, you handle your native language so as to make it appear that THE RAILROAD MAN'S MAGAZINE is English. Far be it from us to disclaim any honor, which we can legitimately hold, but really and truly we are not very English.

THE OLD SONGS.

OF the old songs and poems asked for in our April number, we give this month two: "The Night Operator" and "The Brakeman's Appeal." Both are old-timers, and we beg to thank those of our readers who sent us the words. Such kindness is appreciated.

Now, all make the getaway!

THE NIGHT OPERATOR.

BY J. S. TAYLOR.

In his little lamp-lit office
Through the gloomy hours of night,
Sits the lone night operator
From the eve till morning light.
Watching close with sharpened hearing
What the sleepless sounders say,
Talking with his wakeful neighbors
In the stations far away.

Conversation with his far-off neighbors
Drives the dull night hours along,
While his duties and his orders
All the while his memory throng;
Though his eyelids drop at midnight,
Fain to close themselves in sleep,
Not for him the bliss of slumber,
He must still his vigil keep.

All the while the sleepless sounder
Tells its tales of joy and wo,
Now it tells of birth and marriages,
And how hearts with rapture glow;
Now it tells of fatal sickness,
Now it speaks of wailing breath,
Now it speaks of mournful accents
Of some dear friend's sudden death.

Now I see a scowl of anger
Cloud the operator's brow,
Hear him breaking in his sending,
Wonder what's the matter now.
'Tis some plug that is receiving,
Hear him break and say "GA"
Four or five times in one message,
Ere he deigns to sound "O. K."

Now his office call is sounded—
How the glistening sounder clicks—
And he catches quick the order:
Flag and hold train No. Six.

Quickly comes another order
For a freight-train overdue,
And the sounder clicks it fiercely:
Hurry up the "32."

Now he's fighting for the circuit
With some fellow working west,
One can never break the other,
Each one does his level best;
Quickly speaks the train despatcher,
How his sharp words ringing come,
Stop, I tell you, stop this breaking,
Or, I'll send you rascals home.

Little knows the man or woman
Swiftly speeding o'er the rail,
How the safety or the danger
Rests on one who dare not fail.
Even on the night operator,
Seated in his lonely room,
Whose mistaking of an order
Sends the train to awful doom.

Kindly greet the operator,
He is human, nothing less,
Let some soft word, kindly spoken,
Serve his tired heart to bless.
Oft he tires answering questions,
And his face looks hard as stone,
But the heart within his bosom
Beats as kindly as your own.

THE BRAKEMAN'S APPEAL.

In the pleasant summer weather,
Standing on the car-top high,
He can view the changing landscape
As he swiftly rushes by.
While he notes the beauteous pictures
Which the lovely landscape makes—
Suddenly across his dreaming
Comes the quick, shrill cry for brakes.

But when winter's icy fingers
Covers earth with snowy shroud,
And the north wind like a madman,
Rushes on with shriekings loud,
Then behold the gallant brakeman
Springs to heed the engine's call,
Running o'er the icy car-top—
God protect him should he fall!

Do not scorn, but treat him kindly,
He will give you smile for smile;
Tho' he's nothing but a brakeman,
Do not deem him surely vile.
Speak to him in kindly language,
Tho' his clothes are coarse and plain,
For in his breast surely there beats
A heart that feels both joy and pain.

He may have a hopeful mother,
He may be her greatest joy;
Perhaps at home she is praying
For the safety of her boy.
How he loves that dear, good mother,
Toiling for her day by day;
Always bringing home some present
Every time he draws his pay.

Daily facing death and danger—
One misstep or slip of hand,
Sends the poor, unlucky brakeman
To the dreaded unknown land.
While we scan the evening paper
Note what its filled columns say;
One brief line attracts our notice:
"One more brakeman hurt to-day!"

TWO IMPORTANT CONVENTIONS.

THE Master Car Builders' and Master Mechanics' conventions at Atlantic City, New Jersey, June 15-22, will be of unusual interest to the entire railroad world. In all probability these two influential organizations will be merged into one association. This was strongly recommended by former President H. H. Vaughn in his 1909 address to the American Railway Master Mechanics' Association, and it is believed that should the matter be put to a vote a majority of the members of both bodies will be in favor of the merger. In addition to this, the technical value and research embodied in the various papers to be read and discussed will render the 1910 conventions the most important in the history of either association.

ANOTHER HOBO BALLAD.

WE have received from Jerry Wilson, of Liberty, Indiana, the following touching contribution to the already overladen wanderlust classics. Mr. Wilson found it in an old book. We take pleasure in giving it to the public again through our Carpet, and we have several other good ones which Mr. Wilson kindly sent us to print later.

Swing her ahead!

TALE OF A TRAMP.

WELL, we comes to Punkin Center, that's a
town in Kansas State,
And the brakie finds us hiding, so he ditched
us off the freight,
And we watched her tail-lights glimmerin'
down the track a mile away,
And it sets my think-box rattling that we'd
come to town to stay,
Fer this burg was sure a station where the
rattlers seldom stop,
So my side-kick puts it to me that we find
a place to flop.
Well, we does; we finds a barn-loft filled
with soft and smelly hay,
And we pounds our ears inside it till about
noon next day.

Then I tells my pal, "Let's beat it. Guess
we'll have to throw our feet,"
Fer my backbone's in my stummick an' I
need a bite to eat.
"Meet me down above the deepo when
you've hit 'em up a bit,
I'll be there if I'm in luck and we'll divvy
what we git."
Well, we splits; he takes the main-stem an'
I does the rural scout,
And the seventh door I batters—bim! the
dame just jaws me out
Something awful, calls me lazy—calls me
bum and calls me shirk—
Sez a great big tramp like I was ought to
go to work.

Say, her talk was sure a cuckoo, and the fire
flashed in her eyes,
But I past her well-curb goin'—and I cops
two custard pies.
Big and round they was and juicy, pretty fat
for such as me,
So I beats it down to meet Bill where I tells
him I would be.
He was there; we chews that swell feed,
with our whiskers full of grins,
And I says, "She give 'em to me if we'd
bring back her tins.
You go take 'em to her buddy, set 'em down
inside the door—
Now that husky, hungry hobo ain't my
pardner any more.

CONDUCTORS IN DEMAND.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

YOUR "By the Light of the Lantern," some two months ago, in reply to an inquirer, said "That promotion from brakeman to conductor was getting slower for some unaccountable reason." Here, in the West, there is a demand for conductors, and, later on, there will not be sufficient to fill the demand. I was promoted after two weeks. Any brakeman of three years' experience proving that he has the goods on him—accent on "the goods"—need not brake long on any of the Western lines.

C., Vancouver, Wash.

"THE GENERAL" AGAIN.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

REFERRING to the query of "I. S.," Fishkill Landing, New York, in your April number, the engine, "General," *is the original* engine run by Andrews, and I think that "I. S." is a little bit off. This engine, after the Civil War, was used in freight service on the old "W. and A." Railroad between Chattanooga and Atlanta.

Since then, the engine has been repaired and painted, and, as you know, is now on exhibition in the Union depot at Chattanooga, Tennessee.

Kindly publish this in your next number, for the *special* benefit of "I. S.," and any others who may wish to know the correct answer to his query. The engine "Hero," which he mentions, is probably one of the

other two engines besides the "General" which were used in this famous escapade.

"D. P.," Nashville, Tenn.

THE JARRETT & PALMER ENGINE.

WE acknowledge with much pleasure a letter from Mr. C. J. McMaster, Malone, New York, which brings to our notice some intimate information regarding the locomotive that made the remarkable run with the Jarrett & Palmer Special, in 1876, from Ogden, Utah, to Oakland, California, as described in our March number. The distance between the two cities is 876 miles, and the engine that made the run was the "Black Fox."

We are always glad to receive such letters as Mr. McMaster's, and we take pleasure in publishing it in full:

EDITOR, THE RAILROAD MAN'S MAGAZINE:

In your issue of March, 1910, in the article about the Jarrett & Palmer special, I note you give the names of several railroad officials connected with this train, but do not give names of the engineers and firemen, or other railroadmen that did the work and brought about such satisfactory results. I am not kicking, but it would be a pleasure to many of your readers to have such information.

I was in the employ of the Long Island Railroad as a locomotive engineer in June, 1869, and Mr. Oliver Charlick was the president. He occasionally took a ride with me on the engine, and, as he was quite well acquainted with me, he would often converse with me at Hunter's Point Station while we were waiting for the boats to come from New York for our connection.

At this time, I was running the engine "A. J. Vanderpool" on the Greenport express. This was a fine Schenectady or McQueen locomotive, and Mr. Charlick seemed to take great pride in her.

Mr. Charlick told me that Mr. Huntington had an order with the Schenectady Locomotive Works for fifty locomotives, and he was trying to get two out of this particular order, as they could not build those he had ordered early enough for his requirements. He had been made president of the Lebanon Springs and Bennington and Rutland Railroad, which was an extension of the New York and Harlem Railroad from Chatham, New York to Rutland, Vermont.

Incidentally, he asked if I was much acquainted with that locality. I informed him that I had been employed on the New York and Harlem Railroad for several years, as fireman and engineer, and that I was at home at Chatham.

He then instructed Mr. C. A. Thompson, M. M. of the Long Island Railroad, to send three old locomotives to the Lebanon Springs road. Mr. Thompson sent the "Pacific" (which was later named the "Manchester"), the "James Sedgley" (which was later named the "Lebanon"), and the "George F. Carman."

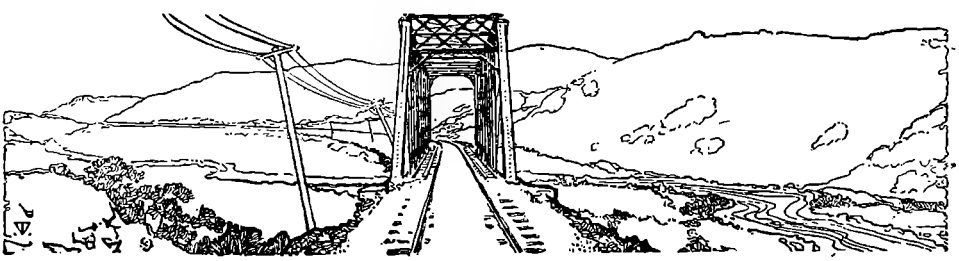
I was sent with the "Carman," set her up, and turned her over to the L. S., and B. and R. R. R. He then got two locomotives out of Mr. Huntington (orders No. 150 and 151), named "Mountain Boy" and "Mountain Girl." Now, the engine that made the run from Ogden to San Francisco, pulling the Jarrett & Palmer Special, 876 miles without change, was No. 149, named "Black Fox," and was a sister engine to the "Mountain Boy" and "Mountain Girl."

I took the "Mountain Girl" the 10th day of August and ran her most of the time up to February 28, 1885, when I was made M. M. of the B. and R. road, and kept these two engines in good repair up to the summer of 1906, when the "Mountain Girl" was demolished in an automobile wreck, running backward on the Bennington Branch.

The boiler of this engine is now in service in an excelsior mill at Rutland, Vermont. The "Mountain Boy" is still in service on the Rutland Railroad under the number 1060. Although it seems interesting to see such things in print, those that have had any familiarity with them like to see more detail, which brings fond recollections to lighten our leisure time.

AMONG THE MISSING.

MR. J. J. BRENNAN, of Auburn, King County, Washington, writes to THE RAILROAD MAN'S MAGAZINE asking for the whereabouts of his brother, H. E. Brennan, known as Harry Brennan. He was employed as switchman on the Great Northern at Delta, Washington, about eighteen months ago. His sick mother would particularly like to hear from him.



WALTER E. FLANDERS—INDUSTRIAL COLOSSUS

THE TRUE WONDER-STORY OF THE POOR VERMONT MACHINIST WHO TURNED $195,000 INTO $6,000,000 IN TWENTY MONTHS, MADE HIS ASSOCIATES RICH, PLACED HIS AUTOMOBILES ON EVERY HIGHWAY IN THE UNION, AND SHARED RESULTS WITH HIS MEN

BY ROBERT H. DAVIS

SOMEWHERE, in the past, an emperor said to his satrap, bending before him: "I have a task for you."

"Sire," responded the obedient one, pressing his forehead to the flag-stones, "if it is possible, it is accomplished. If it is impossible, it shall be accomplished."

Thereupon, having made an imperishable epigram, quite enough to immortalize its sponsor, he curled up and expired, leaving the task undone.

That story belongs to the ages.

The story written upon these pages, the story you are about to read, is an accomplishment of today, the full realization of one man's effort, a triumph so far-reaching in its consequences, so vast in its relation to the future, that it sounds like the history of a dream.

One may read a chapter from "The Arabian Nights"; and, at once, the mind, wafted upon the wings of imagination, soars into the realms of even greater things, wandering unchecked into the far reaches of infinite space, guided by the genie of fancy. Illusion lures us on, and we are lost in the mists.

Not so with the things that are.

I open for you the Volume of Life in the Book of Now. Written upon its leaves is the name of Walter E. Flanders; birthplace Rutland, Vermont; age thirty-nine; nationality American; station in life, son of a country doctor, and poor. His ancestors were French, but their descendant belongs to the New World era.

All that follows is a true story, woven from the career of a living personality.

That part of a life summed up in the word "boyhood" is too ephemeral for historical use—mainly for the reason that a crucial moment in later youth may bend the sapling another way, and so the tree thereafter grows.

Flanders left school at fifteen years of age, and became a machinist, a handler of steel and brass and iron, carving his character out of metal with a cold chisel for a stylus. He stained his hands with journal oil, and wiped the sweat of toil from his brow with a skein of cotton waste. He got all the grand opera he ever heard from the hum of a lathe and the crescendo of an anvil, and his muscle from a hammer of his own forging. In his own language, it was "hard scratching."

He bent his whole mind to the work of creating, urged on by the insatiate national demand for perfection in machines. He saw the hand-made products of mankind wavering from their supreme position. Everywhere the country was growing, manufacturing increasing. The call for tools smote him on all sides. Consumers wanted quicker action and wider, swifter distribution.

He dropped his hammer, stopped his lathe and went on the road as a salesman, leaving behind him, with all their alluring memories, the scenes of his earlier life.

Something bigger and broader beckoned to him. The risk he ran was nothing compared with the benefits that might accrue if he succeeded. Failure did not figure in his plans. And he did succeed—succeeded because he knew there was a demand—and saw ahead of him the outstretched hands filled with orders and dollars. Artisans, craftsmen, and manufacturers wanted what he had to sell, and they were willing to pay. He combined personality with business, and to those to whom he sold his machines he imparted knowledge as to their uses. His customers got not only what they paid for, but some of Flanders's inspiration gratis. His heart was in his business.

Soon it began to dawn upon this Vermonter that if he could sell other men's tools, he could with perhaps greater success sell his own. He discerned an increasing demand for certain special machines and machine tools. Equipped with ability to create and distribute, he became a producer, his one idea being not only to keep abreast of the demand of the market, but ahead of it. He felt instinctively that the great problem in manufacturing was to minimize the cost of production through mechanical means without detracting from the quality of the output. In fact, he set his mind to the business of increasing the general excellence. That has been his life work.

During this formative period, so necessary in the development of one who was later destined to take a supreme position in manufacturing and commerce, there was forming in the back of his mind a vague hope that his influence might become universal instead of local. All he lacked was the right opportunity—the big nation-wide call. His business continued to grow, and, with it, his ambitions. But there was a restlessness in his heart, a galling sense of restraint. Things weren't coming along fast enough; and, without knowing why, and failing to analyze the situation to his satisfaction, young Flanders began to chafe.

About this time, 1895, in the city of Chicago—Thanksgiving Day, to be exact—Mr. Herman Kohlsaat offered the sum of $500 for the man who could first cover the route in an automobile over a course from Jackson Park, Chicago, to Evanston, and back. The distance was fifty-four miles. The winner consumed ten hours and fifty-four minutes in making the trip. That meant an average speed of about five and a quarter miles an hour.

There were six entries, four gasoline and two electrics. Mr. Kohlsaat was so shocked at the bad time made that when the first car passed his house, late in the afternoon, he had retired from his front porch in disgust. The papers printed many columns about the event, however, and a few courageous prophets began to sit up and take heart.

History laid an egg that day.

Two years later, when the Dingley tariff bill was adopted, the gentlemen in Washington who watch over our destinies hid the automobile in the schedule of "manufactured metal." It was denied the dignity of a separate classification.

In the meantime, Flanders turned his face across the prairies toward Chicago. He saw the race dimly, and although the spark did not work very well that bleak afternoon on the road to Evanston, it struck a new light in the mind of the New England machinist.

Something began to loom large ahead of him, at first intangible and shapeless. He saw before him the open road, and on its stretches automobiles. And slowly, but surely, there crept upon him the realization that his day was coming, a period that, from the very nature of things, might be delayed, but nevertheless was sure of fulfilment.

The egg in Chicago began to get warm.

His previous experience had taught him that it was useless to engage in an enterprise contemplating the sale of anything for which there was not a widespread demand. He knew that the automobile was in the experimental stage, retarded in its development by a very natural hesitation on the part of a people who preferred to group themselves with the spectators rather than the participants.

As late as 1900 the automobile was still a novelty, not more than twelve hundred being in use throughout the United States. Not more than twice that number existed in Europe.

Suddenly the magic wand of demand

began to beat time with the increasing orders, and in 1903 the business advanced to $16,000,000, and the industry leaped forward in such volume that the figures became dazzling exhibits in multiplication. To wit: 1904, $24,500,000; 1905, $42,000,000; 1906, $50,000,000; 1907, $105,000,000. At this juncture, in the onrush, money conditions were disturbed in the United States, and the output dropped back to $83,000,000. In 1909 the tide turned again, and the figures went up to $135,000,000. It is estimated that this year the amount will exceed the almost incredible sum of $250,000,000.

WALTER E. FLANDERS, PRESIDENT AND GENERAL MANAGER OF THE E–M–F COMPANY

The egg had hatched.

Into the thick of this colossal proposition stepped Flanders, equipped to meet any condition.

A good mechanic forges his own armor.

He had mastered the details of construction, the business of direction, the art of organization. About him he had gathered men into whom he had infused a virility which displayed its power in everything they touched. They were inoculated with the kind of impulse that is kept alive by a sense of pride not only in what they had already achieved, but in what they intended to do as well.

How did he accomplish this almost impossible result? By what manner did he make his men into soldiers just as loyal to him as they were to their higher ideals?

HE PICKED THE RIGHT MEN.

That was his first step in a plan that meant as much to the future as it did to the present. The only way possible for him to work out his scheme and carry it through and over all obstacles was to convince his lieutenants that he regarded them worthy of trust and to fix upon them responsibilities, the accomplishment of which would justify his most substantial approval.

He selected those men as the machinist selects his steel—with an eye to quality, strength, temper, and durability. "Will this man stand the test without breaking? Will he hold up under the pressure that will fall upon him? Can I depend upon him at a critical moment? Yes. I will take him."

And then there arose in his mind the one big, overwhelming query, the question that appeals to employer and employee alike:

"HOW SHALL I REWARD HIM?"

And in the solution of this problem, Flanders rose to the supreme pinnacle of his individualism, the apex of his mastership of industry. I give you the secret of his success in one sentence:

"I WILL LET HIM SHARE RESULTS."

In a word, those who helped him reap got some of the crop. It was not bestowed because of friendship, not given as a charity, not placed in their hands as a concession to their presence, but as an earned bonus for honest work honestly performed, and because of which the customers of Flanders got their dues.

It may be interesting to whoever reads these lines to know that I have never interviewed the gentleman they concern. I gather all that is to be said from his associates, from those who have benefited through and been inspired by his methods. I saw hundreds of well-ordered, cheerful men at his drills and forges and throughout his shops, with their eyes on their work and contentment in their faces.

Perhaps the best example of the excellence of his doctrines, as applied to the business of manufacturing, is illustrated in Plant No. 1 of the E-M-F Company at Detroit, the first established by Mr. Flanders.

That particular factory had a capacity of thirty cars a day. A visitor, one quite familiar with the automobile business, discovered in looking over the institution that sixty-five cars a day were being turned out.

"How do you do this?" he asked, somewhat bewildered. "Your equipment calls for thirty cars a day. Yet you turn out more than twice that number."

"I share results with my men. I make it worth while to them in dollars and cents. Every car that leaves this plant for shipment represents a premium to every employee here. It is true that the plant calls for thirty cars per day, but *I am fortunate in having a sixty-five car crew.*"

That is how Flanders explained it.

How simple it all seems, and what a tremendous bearing it has upon the quality of the output. Apparently it pays to have the instincts of a human being, to possess red blood in one's veins, and to let that fact be known in business as well as in private life.

Straws show how the wind blows. For example, to proceed further in a solution of the mystery as to how he does it. When the championship baseball game between the Detroit Tigers and the White Socks was played in 1909, the E-M-F Plant No. 1 shut down Friday afternoon, and all hands, including Flanders himself, went to the ball grounds, saw the Tigers win, and went to their homes rejoicing in the victory. What happened on the morrow, Saturday, when all E-M-F plants shut down at noon? The impossible? Yes.

Eighty-three cars left the plant in perfect condition, and were shipped as usual to various agents. The lost time of the previous day was made up, the full complement of cars turned out, and every employee got his full week's salary and his weekly premiums as well. That's Flanders's way.

This means organization of the highest type, and its fruits are shared by the one most concerned—the purchaser. Every employee feels the responsibility of his position. He is made to appreciate his relation to the concern. He sees about him the interdependent benefits that attend through the work of the man next to him.

His heart beats with the note of partnership, and he achieves not only the benefits of employment, but the greater satisfaction of accumulating profits. Moreover, he enjoys reasonable hours and a week-end relaxation that fits him to put his heart and his head into the task before him. He never finds himself "asleep at the switch."

The man who worked out this system of endeavor, with all that it stands for, holds that "a fagged mind is incapable of interest." Furthermore, he has a theory that it is not natural for man to work at night: that the machine, as well as its operator, suffers injury greatly in excess of the advantage gained.

Flanders learned this early in life when he himself had to work over-time, and paid for it the next day in exhaustion and indifference. The lesson left its impress for all time, and today no man in his employ comes to his task tired—or leaves it so.

His hours at the factory are from eight to five. His is a life of performance, and ever uppermost in his mind is the one idea to make those around him put forth their best efforts on their own account, to go forward in unison, the goal of accomplishment ever in view.

Always ahead is the share in the results.

If you were to suggest to Flanders that his heart actuated his policy, he would stoutly deny it. With him it is simply a matter of business, the application of a tenet through which he wins from each man the maximum results. If in the transaction the employee finds additional encouragement to labor, so much the better. But first, last, and all the time, he believes it to be merely a good business proposition.

He has tried every conceivable plan, and discovered that the idea of mutual benefit is the best. Because of it, the machinist watches with more care the drilling of a journal or the tooling of a cylinder; the forger welds with a firmer hand; the electrician makes his connections with finer adjustment; the leather worker does a job in upholstering that is a credit to his skill and a comfort to the luxury-loving buyer, leaning back in the comforting solace of its embrace; the painter plies his brush with measured precision, and the varnisher lays on the gloss as the master touches his picture for the exhibition.

Always there is pride at the workman's elbow, urging him on to perfection and finish and beauty. And when the work is done and the glistening car rolls out on the shipping-platform, tested, complete and perfect in every detail, those men through whose hands it has passed know that it represents something more than a mass of metal and trappings hastily thrown together and thrust upon the market against time to perish because of its weaknesses and tumble into the junk-heap. It is something that will endure, and *they made it.*

When an E-M-F employee sees one of the company's cars on the thoroughfare, his face lights up with pleasure. He knows it to be built on honor. Part of it is his own, and he is certain that the man at the wheel is benefited in satisfaction as was the builder in premiums and pride.

That knowledge is an asset of incalculable worth, a circumstance that plays a strong part in the transaction of distribution and salesmanship. The buying public is too shrewd not to take advantage of the inspiration that contributes to the creation of such a machine.

And so the army of men behind Flanders march onward, adding to their strength, winning new positions in the manufacturing world, opening up new

territory, planting the standard of accomplishment along the highway, each private just as sure of his strength as the crusader who blazed the way.

Because of these conditions and with the impetus created, the E-M-F Company found itself in a strategic position. Its enterprise attracted the attention not only of the dealers, but the public as well. From every quarter of the Union buyers sought its output. A steady stream of orders came to Detroit, and the plant found itself taxed to its utmost.

The business grew so fast that the old plan of distribution and sale was found inadequate to meet the clamor for cars. Flanders, discerning a cloud on the horizon, decided to reorganize his sales force, to establish E-M-F salesmen in a thousand American cities, to develop new concerns throughout the country, whose sole mission was to handle the E-M-F "30" and the Flanders "20" to the exclusion of all other cars, and, moreover, to begin with the thirty-five metropolitan centers at once.

It was a proposition of unusual proportions, requiring a prompt decision as to the program by which it was to be brought about. During the halt to plan this step twelve hundred cars had accumulated in the stock-rooms. Flanders himself had held them back, pending his coup. He took twenty-four hours off for deliberation, mapped the whole thing out to its minutest detail and sent for his advertising manager, Mr. E. LeRoy Pelletier.

The conference was short and to the point.

"The E-M-F Company is ready to close with a representative in thirty-five American cities to handle its product direct, instead of through the sales organization which formerly acted as its distributer." That was the burden of his statement.

Mr. Pelletier stated that he would prepare the advertising immediately.

"How much time have we got in which to do this?" he asked.

"Ten days," answered Flanders. "Phrase the advertisement to suit yourself. All I want to offer is this paragraph."

He handed Mr. Pelletier a slip of paper, upon which was written:

"A splendid opportunity for hustling young men of good standing, having experience in selling large quantities of automobiles, and with sufficient backing to finance this proposition to form a sales company. The E-M-F Company will cooperate with you in establishing a permanent business corporation."

"The mails are pretty slow for such an occasion," volunteered Pelletier.

"You're quite right," said Flanders. "Use the telegraph. Make the copy for half pages, and use two dailies in each city. The rest of the work is up to you. Do whatever you think best."

And so the work was turned over to the lieutenant, and before sundown the copy was prepared and flashed to the thirty-five largest cities in the Union. It was a gigantic stroke of business.

The forty-six words embodied in Flanders's contribution to that advertisement had a telling effect on the wide-awake automobile men throughout the country as indicated by the fact that on the following day there started from San Francisco, on the same train, six men with ample backing, bent on getting to Detroit for the sole purpose of securing the agency.

And from other sections, not so remote as San Francisco, they poured into Detroit on every train. The successful San Franciscan took three hundred cars on his first order, paid cash for fifty, and left shipping instructions for the remaining two hundred and fifty. A sight draft was attached to each bill of lading.

Within the ten days specified, the twelve hundred cars were cleaned out of the E-M-F store-rooms, four hundred more were ordered, and one million dollars had poured into the strong box of the company, added to which were $19,000,000 additional in future orders.

It does not require a mathematician to figure out just what Flanders's plunge meant to the E-M-F Company. Let us calculate the value of those forty-six words that he contributed to the advertisement, based on the $20,000,000 results. In actual money, it figures out $434,782.60 per word.

Rather high rates for a man who isn't addicted to the writing habit. Occasionally a dream comes true.

Quite naturally this performance staggered the automobile world and startled Flanders's competitors. As a matter of fact, it did more than that. It woke up capital and drew the attention of Wall Street to the significant fact that a new giant in the industrial world, a modern "colossus of roads" had reared his head in Detroit and was about to march upon the open highway and claim his share of the rewards of progress. It had none of the significance of a raid; it was business and salesmanship pure and simple. The idea was huge with promise and the money powers knew it had come to stay.

What all this meant to the banking world will be the more appreciated when it is pointed out that less than two years ago it was practically impossible to borrow a dollar on an automobile manufacturing proposition. It was considered too great a risk for the conservative banking world to undertake, and a deaf ear was turned to every appeal.

Only private capital had the courage to invest—and always against the advice of the bankers. Other sources of supply remained aloof. Within the last year, however, the situation showed signs of relaxing, and the money powers, encouraged and attracted by the steady growth of the business and the rapidly increasing demand for automobiles of all kinds, came forward with offers of support to several companies that had established a firm footing.

Nothing, however, in the automobile business appeared to have made the impression that was occasioned by Flanders's achievement and in the face of such odds. It was gigantic in its promise and awakened a lively discussion and interest.

Flanders must be seen at once. He had done something that entitled him to serious consideration. He was invited to come to New York and consult with a representative of the leading bankers. Several meetings were held. "What had the Vermont machinist to sell? How much did he consider it worth? How old was the business? Had he any plans for the future? Were the books accessible, etc., etc.?"

Flanders presented his case briefly. His total investment in twenty months amounted to $195,000; his pay-roll numbered about 12,500, and it was agreeable to him that the probable purchaser install an expert accountant to go over his books. He was of the opinion that about $6.000.000 would be sufficient to close the deal and turn over the E-M-F Company to whoever wished to secure possession of the property, together with what it meant to the future of automobile manufacturing.

The banker, with that foresight which has marked his course in similar large industrial enterprises, considered the Flanders proposition a fair one, and the transaction was closed upon those terms. Thus, the E-M-F Company's original investment was turned over in twenty months multiplied thirty-two times.

Wait! That is not all. Flanders had some partners, a group of men who had gathered under his standard when the outlook was not so encouraging and daring was fraught with peril—a band of faithful followers who had cast their lot with him when fortune was not smiling so broadly. They must be cared for; their stock holdings taken up *and for cash*. Very well!

What did Flanders consider proper in the circumstances? Well, about eight for one. The banker agreed, and it was settled on that basis. Those men became rich overnight, and Flanders was satisfied. How well the sharing policy worked out—just as Flanders meant it should. All his promises were kept, and the original organization, with all its heart and energy and inspiration, got its dues.

Those men are still with the E-M-F Company and Flanders.

What did the new investors buy besides the good-will and the plant? The appraisers passed on the pile of brick and mortar, the equipment, and the stock, and summed up the worth of the concern in all its inert majesty. There it stood a monument to its builder, a structure into which he had injected all of himself and into which he led twelve thousand or

more active loyal workmen from whose brains and hands he had moulded success for all of them. Each man asked the question, if not to his neighbor, to himself:

"WHAT WILL THE NEW BOSS DO WITH US?"

It was a dramatic situation, marked with suspense—yes, with alarm.

Flanders meant more to those men than they could possibly convey to the new owners, and they wished to know what was to become of him. One day a whisper ran through the factory. It leaped from lip to lip, from floor to floor, through the assembling-room, out into the foundry, back into the offices, down the long aisles of the machine-shop, up and across and through the yards, past the gatemen, and then, by phone to the homes, and over the continent to the salesmen, and twelve thousand pulses began to beat faster.

"FLANDERS WAS TO REMAIN IN CHARGE."

The new interests, wise in their prosperity, had secured not only the plant and its good-will, but the big man with the shock of tousled curly hair, the beetling brows of the elder Dumas, and the instincts of brotherhood.

They had retained the man whose motto is "He who shares results lives after he is gone. He who does not, dies and is forgotten."

When Flanders speaks of the E-M-F Company, he refers always to his lieutenants. Whatever he has achieved he charges to them. He takes little or no credit for himself. His only claim is that he knows a good man when he sees one. Also he knows the business of automobile manufacturing in all its phases.

His influence in the industry extends to the remotest corners of the globe. Every rubber company in the world looks to him for some of his business. The cattle on a thousand hills sooner or later contribute hides for leather. The steel forgers and brass makers and iron kings come inevitably to his doors for trade. The hardwood forests of the tropics pass through his planers, and a river of lubricating oil runs through his automatic machines.

Where in this country is there a more encouraging example for the youth who is scanning the horizon of his life in search of an opportunity? Flanders proves that opportunities can be made, for whatever he has achieved is traceable to his own efforts, coupled with a sense of justice and fair dealing with his fellow man.

His is the life drama of one who learned a trade, worked out its details, and then hoisted his flag for business. He knew what he wanted to do, and how to do it. With one blow he struck the high, clear note of organization plus compensation. In the hands that were lifted to signify a willingness to go on the firing-line he put the tools with which to work; in their hearts the fervor of enthusiasm, and in their pockets the reward.

He raised wages, gave the people better cars, brought new ideas to the business of distribution and manufacture, and the banking world came to his doors.

He saw from the capital of experience just what was needed to awaken the vast opportunity summed up in the word *motor-car*. It did not require a colossus to observe these things; nor yet a colossus to lay the plans. But it did require a colossus to put the plans into execution—to instil into the men the kind of stimulus and understanding that would directly benefit the buying public. It was not a problem in psychology. It was just a proposition of everyday, plain, American commonsense applied to modern conditions, with a rather clear eye on the future.

It was adding a personality to an industry, vitalizing a trade, putting breath and head and heart into a machine and "whacking up" with the other fellow.

"He who shares results lives after he is gone. He who does not, dies and is forgotten."

Flanders not only made his epigram, but, unlike the satrap, accomplished the seemingly impossible as well. And out of it grew an empire in the industrial world which all other powers in the parliament of progress recognize for what it has already done, and respect for what it intends to do.

Universal Intercommunication

AMERICAN TELEPHONE & TELEGRAPH CO.
AND ASSOCIATED COMPANIES
LOCAL AND LONG DISTANCE TELEPHONE
BELL SYSTEM

Universal service as typified by the Bell System today is the result of thirty years of unceasing endeavor.

The equipment for this service includes ten million miles of wire, more than twenty-five thousand miles of underground conduit, buildings enough to house a city of people, thousands of switchboards with millions of tiny electric lights and billions of miles of fine copper threads—*over five million telephones in daily use.*

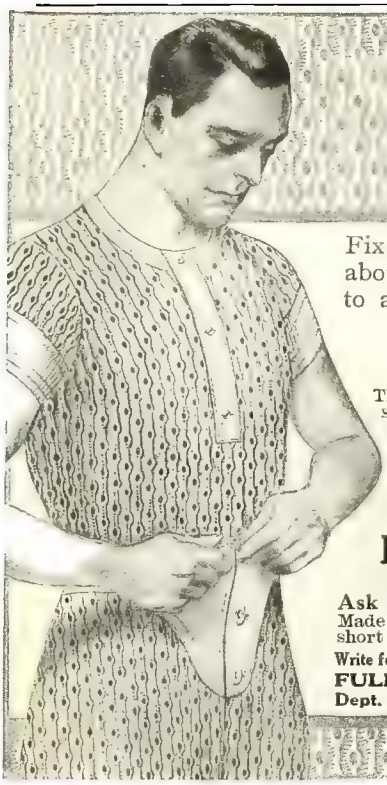
This great development has been made possible only by sound financing and proper provision for maintenance and reconstruction; while fair profits and substantial security have won the confidence of conservative investors. Especially when considered with the fact that the value of Bell properties exceeds the outstanding capital.

The Bell System was so wisely planned and soundly constructed that it has kept pace with the constantly increasing demands of a Nation.

Twenty million connections made daily show the usefulness of the Bell Service

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy ***One System*** ***Universal Service***



Keepkool
TRADE MARK
UNDERWEAR

Fix this fact in your memory. Consult your Comfort about it. It is your reason for preferring *Keepkool* to any other summer underwear.

KEEPKOOL is the Only Elastic Ribbed, Porous Underwear

The porous idea in underwear was never given practical expression until the elastic ribbed *Keepkool* was invented and patented.

And *Keepkool* is the only porous underwear that allows unrestricted freedom of movement—that gives perfect and permanent fit—that delivers a full money value in wear.

Men's Separate Garments **50c**

Men's Union Suits, $1.00

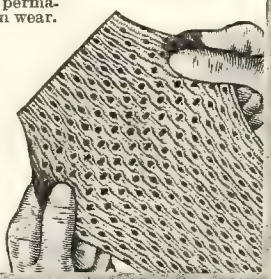
Boys' Separate Garments **25c**

Boys' Union Suits, 50c.

Ask your dealer for KEEPKOOL. Made in knee or ankle length drawers, short or long sleeves and athletic shirts.

Write for catalog and sample of Keepkool fabric

FULD & HATCH KNITTING CO.
Dept. H. Albany, N. Y.



ELGIN WATCHES ON CREDIT

Sent Prepaid on Free Trial

SPECIAL WHOLESALE PRICES THIS MONTH.

Let me send you this 17-Jewel Elgin

C. M. Wheeler 12 or 16 Size Thin Model at our Bed-Rock Wholesale Price on Approval.

No Money Down

P.S. Harris, Pres. Harris-Goar Co.
The House that sells more Elgin Watches than any other firm in the world.

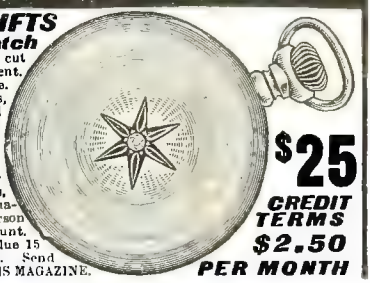
It's the one watch without an equal—the kind you have always admired—adjusted to Three Positions, Temperature and Isochronism—finely finished and fitted in a Double Strata Gold Case, Hand Engraved and GUARANTEED FOR TWENTY-FIVE YEARS.

You Assume No Risk Whatever in dealing with us because before you buy or pay one cent, we place the Watch right in your own hands and let it do its own talking, and if it suits, you may pay cash or take advantage of our Easy Payment Plan ranging from $5.00 a month down to **$2.00 a Month**

We Ask No Security and No Interest —just plain honesty among men. Our Elgin Watches are so well known and our CREDIT PLAN so easy, that no matter where you live or how small your wages, WE WILL TRUST YOU, so that you and every honest man and woman can own a High-Grade Elgin watch in a beautiful Guaranteed 25-year Gold Case and wear it while paying for it in such small payments that you never miss the money. **WRITE TODAY FOR OUR BIG FREE WATCH CATALOG.** It tells all about our easy credit plan and how we sell **Elgin 19-Jewel B. W. Raymond and 21 and 23-Jewel Elgin Veritas** everywhere on Free Trial without security or one cent deposit, **Positively GUARANTEED** to pass any Railroad Inspection. **HARRIS-GOAR COMPANY, 1528 Grand Ave. Kansas City, Mo.**

DIAMONDS WATCHES ON CREDIT LOFTIS SYSTEM

GIFTS FOR THE JUNE BRIDE AND GRADUATION GIFTS
A Diamond Brooch, Locket, La Valliere or Diamond-Set Watch



Our Great Special—Ladies' Watch Solid Gold, polished, raised star; Genuine Diamond, perfect in cut and full of fiery brilliancy; choice of Elgin or Waltham movement. Extraordinary value at $25. Easy payments, $2 50 per month. Guaranteed to keep accurate time.

Write for Our Handsome Free Catalog containing over 1500 beautiful illustrations of Diamonds, Watches and Artistic Jewelry. Select any article you would like to own or present as a gift to a loved one: it will be sent on approval to your home, place of business, or express office, without any obligation whatever on your part. If satisfactory in every way, pay one-fifth down and keep it, balance in eight equal monthly amounts. If not satisfactory, return it. We pay all charges and take all risks. Our prices are the lowest. Our terms are the easiest.

An Account with Us is a confidential matter. Our customers use their charge accounts with us year after year, finding them a great convenience at such times as anniversaries, weddings, birthdays, graduations, etc. Any honest person may open a charge account. Diamonds increase in value 15 to 20 per cent each year. Send for free copy of the LOFTIS MAGAZINE.

$25 CREDIT TERMS $2.50 PER MONTH

LOFTIS BROS. & CO. THE OLD RELIABLE ORIGINAL DIAMOND AND WATCH CREDIT HOUSE
Dept. F 641 92 to 98 State St., CHICAGO, ILL.
Branches: Pittsburg, Pa., and St. Louis, Mo.

Are Your Eyes Affected in Any Way?

IF SO, LET US SEND YOU

THE IDEAL SIGHT RESTORER

THE NORMAL EYE — For 10 days at our expense

IT helps Nature in a purely natural way to strengthen the eyes and restore the natural vision. Its action is in the nature of a gentle massage, which stimulates the eyes by restoring the normal circulation of blood—that is all that weak eyes require. But it does more—it molds the eye painlessly but surely to its perfect shape. This is necessary to correct near-sight, far-sight, astigmatism, and kindred defects. It is absolutely safe—it does not come in direct contact with the eyes; and five minutes' manipulation, in your own home, twice a day, is all that is necessary to counteract eye strain and headache, and relegate eyeglasses to the rubbish box. Throw away your eyeglasses. See nature, and read with your naked eyes. Write for instructive booklet No. 175 F **and 10 days' test to**

THE IDEAL CO., 134 West 65th St., N. Y.

$50 Weekly Profit

This is what hundreds of our operators are now earning. **Why not you?**

The Wonder Cannon Camera

is the biggest money-making device on the market, for carnivals, picnics, fairs and street parades, on street corners, and in fact everywhere people gather.

The Cannon Camera makes 8 finished photo buttons in one minute, ready to wear.

Positively No Experience Required

Complete instructions go with every outfit and are simple enough to enable you to learn the business in 30 minutes.

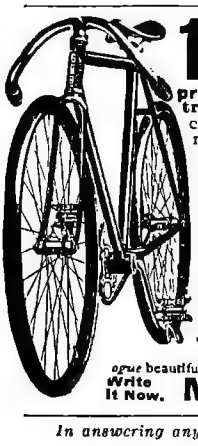
Only $25 needed to start this big, pleasant, profitable business. This pays for complete outfit which consists of **Wonder Cannon Camera**, Tripod and supplies for making 400 finished photo buttons that sell for 10c and 15c each cost 2c each. Selling the finished button picture at only 10c nets $40.00. This leaves a good profit above the original investment besides the ownership of the **Cannon Camera** and Tripod.

Additional Button Plates $1.00 per hundred
Additional Gilt Frames $1.25 per gross

Don't Delay! Write Today For Our

FREE CATALOG

Chicago Ferrotype Co.
Dept. 126 Chicago, Ill.



10 DAYS FREE TRIAL

We will ship you a **"RANGER" BICYCLE on approval, freight prepaid,** to any place in the United States *without a cent deposit in advance*, and allow ten days free trial from the day you receive it. If it does not suit you in every way and is not all or more than we claim for it and a better bicycle than you can get anywhere else regardless of price, or if for any reason whatever you do not wish to keep it, ship it back to us at our expense for freight and you will *not be out one cent.*

LOW FACTORY PRICES We sell the highest grade bicycles direct from factory to rider at lower prices than any other house. We save you $10 to $25 middlemen's profit on every bicycle. Highest grade models with Puncture-Proof tires, Imported Roller chains, pedals, etc., at prices no higher than cheap mail order bicycles; also reliable medium grade models at **unheard of low prices.**

RIDER AGENTS WANTED in each town and district to ride and exhibit a sample 1910 **"Ranger"** Bicycle furnished by us. **You will be astonished** at the *wonderfully low Prices* and the liberal propositions and special offer we will give on the first 1910 sample going to your town. **Write at once** for our *special offer.* **DO NOT BUY** a bicycle or a pair of tires from *anyone at any price* until you receive our catalogue and learn our low prices and liberal terms. **BICYCLE DEALERS,** you can sell our bicycles under your own name plate at double our prices. Orders filled the day received. **SECOND HAND BICYCLES**—a limited number taken in trade by our Chicago retail stores will be closed out at once, at **$3 to $8 each.** Descriptive bargain list mailed free.

TIRES, COASTER BRAKE rear wheels, inner tubes, lamps, cyclometers, parts, repairs and everything in the bicycle line at **half usual prices. DO NOT WAIT,** but write today for our *Large Catalogue* beautifully illustrated and containing a great fund of interesting matter and useful information. It only costs a postal to get everything.

Write It Now. MEAD CYCLE CO. Dept. P31, CHICAGO, ILL.

AGENTS

Phenomenal opportunity to make big money quick. **Get an appointment.** It will make you independent—you will always have abundant money, pleasant position, and your time will be your own. **No Experience Necessary.** Honesty and industry is all we require.

LISTEN: Edw. McGough, Ohio, says: "Made $160 last week. Easiest thing in the world. Everybody buys. Everybody satisfied—me best of all." E. J. Dirr, Mich., says: "Never dreamed of anything selling so easily. 18 orders one day—profit, $22.50. No trick at all. Just show and take the money." **That's the way it goes—every man coining money.** F. J. Baughman, Ohio, says: "Sold 15 first day. Going fine, **fine, FINE,** ship 250 at once. Hurrah for more business." L. C. Gordon, Ind., telegraphs: "Ship 150 today. All sold out. Everybody wants to buy." **Wonderful opportunity. We offer honest, ambitious men a chance to make thousands of dollars.** No matter where you live, write at once. Don't delay. Territory going fast. O. R. Joy, Ill.: "Started out 10 a. m., sold 14 by 3 o'clock." You can make

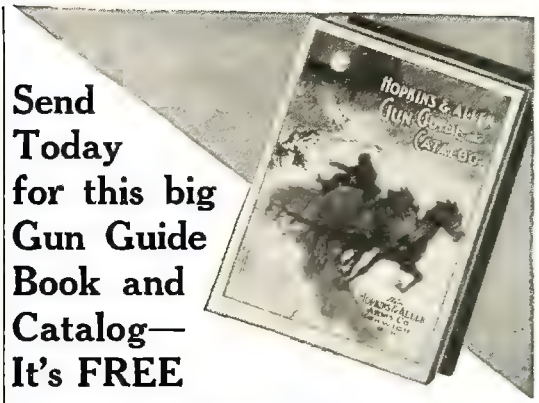
$4000.00

this year selling the U. S. Fire Extinguisher to homes, factories, schools, stores in your territory. Amazing invention. Marvelous combination of mechanical and chemical forces. Kills fire in the wink of an eye. **Absolutely guaranteed.** Sells on sight. New field. Everybody needs it. Saves life, property, insurance. Stupendous money maker for agents, general agents and managers. Exclusive territory, protection, co-operation, assistance. 166 2-3 percent profit. **No Risk.** Fascinating. Permanent.

You need absolutely no experience. We teach you how to make one-minute demonstration that surprises, startles and amazes everybody. We want a good man in every territory to fill orders, appoint, supply, control sub-agents. Get an appointment at once.

SEND NO MONEY. Only your name and address on a postal card for complete information, offer and valuable statistics on fire losses **Free.** Investigate. **Write at Once.** Give name and county.

THE UNITED MFG. CO.,
145 Mill St., LEIPSIC, OHIO
Reference, Bank of Leipsic. Capital, $1,000,000



Send Today for this big Gun Guide Book and Catalog— It's FREE

Every man and boy should have this book. Besides giving much valuable and interesting information to the gun lover as to the care and manufacture of fine arms—it shows, arm by arm, with explanatory detail, the largest line of revolvers, rifles and shotguns made, including the

U. S. GOVERNMENT TESTED

Hopkins & Allen Triple Action Safety Police Revolver

—the only absolutely accident proof revolver made. Thirty-four pages of gun lore with handsome cover in colors.

You need this book if you shoot, or even plan to have a gun or revolver. Send us a postal today. It's free.

THE HOPKINS & ALLEN ARMS CO.
58 Chestnut Street **Norwich, Conn.**

SOUPS, STEWS AND HASHES

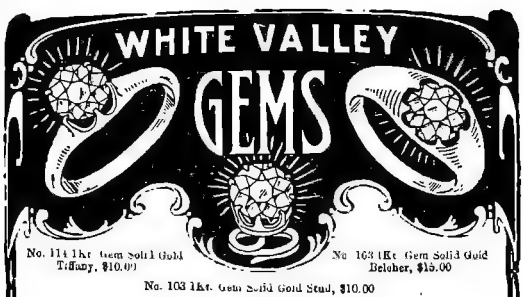
are much improved by adding

LEA & PERRINS SAUCE

THE ORIGINAL WORCESTERSHIRE

A rare relish for Fish, Meats, Game, Salads, Cheese, etc.

JOHN DUNCAN'S SONS, Agts., N. Y.


WHITE VALLEY
GEMS
No. 114 1Kt. Gem Solid Gold Tiffany, $10.00
No 103 1Kt. Gem Solid Gold Belcher, $15.00
No. 103 1Kt. Gem Solid Gold Stud, $10.00

See Them Before Paying

These gems are Chemical White Sapphires and **can't** be **told** from diamonds except by an expert. So **hard** they **can't** be filed, so will wear **forever** and retain brilliancy. We want you to see these gems—we will pay all expenses for you to see them.

Our Proposition—We will send you either rings or stud illustrated—by express C. O. D. all charges **prepaid**—with privilege of examination. If you like it, pay the express man—if you don't, return it to him and it won't cost you a cent. Fair proposition, isn't it? All mounted in solid gold, diamond mountings. **Send for Booklet.**

WHITE VALLEY GEM CO.
904 HOLLIDAY BUILDING, INDIANAPOLIS, IND.

When the Boss "Wants to Know"

WHEN the boss consults you on some important matter you don't have to "guess," "suppose," "think," or "believe," but you can tell him instantly what he wants to know if you have the training such as the International Correspondence Schools can impart to you ***in your spare time.***

And, after all, it is the ability to furnish the right information at the right time that raises your salary and wins you promotion.

IF your present position is one that does not call for ***expert knowledge*** or does not hold out any chance of advancement, the I. C. S. will train you for one that ***does—and in the line of work you like best.*** You will not have to quit work or buy any books. ***The I. C. S. will go to you*** whether you live ten or ten thousand miles away, and will train you ***right in your own home*** for a better position, ***more money***—SUCCESS. Mark the attached coupon and learn how the I. C. S. can do it.

THAT an I. C. S. training is real, ***helpful,*** SALARY-RAISING, is ***proven*** beyond doubt by the monthly average of 300 letters VOLUNTARILY written by students reporting MORE MONEY as the ***direct result*** of I. C. S. help. The number heard from during March was 302.

Can You Read and Write?

IF you can but read and write the I. C. S. has a way to ***help you.*** Mark the coupon and learn how. Marking the coupon entails no expense or obligation. Its purpose is that you may be put in possession of information and advice that will ***clear the way*** to an I. C. S. training, no matter how limited your spare time or means may be.

INTERNATIONAL CORRESPONDENCE SCHOOLS,
Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position before which I have marked X.

General Foreman	Electrical Engineer
R. R. Shop Foreman	Machine Designer
R. R. Traveling Eng.	Electrician
R. R. Trav'g Fireman	Mining Engineer
Locomotive Engineer	Mine Foreman
Air-Brake Instructor	Foreman Machinist
Air-Brake Inspector	Chemist
Air-Brake Repairman	Assayer
Mechanical Engineer	Architect
Mechanical Draftsman	Bookkeeper
R.R. Construction Eng.	Stenographer
Surveyor	Ad Writer
Civil Engineer	Chicken Farming
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Name _____

Employed by _____ R. R.

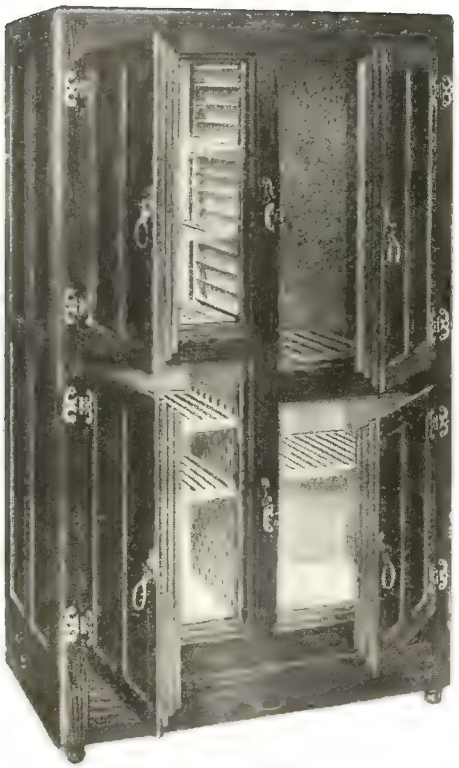
Employed as _____

Street and No. _____

City _____ State _____

Your Greatest Help in Reducing the Cost of Living

is a refrigerator that will keep your food fresh and pure with the least trouble and the least expense for ice.



Bohn Syphon Refrigerators

lined with Genuine White Porcelain Enamel—not paint—are the easiest to keep sweet and clean. Wiping with a moist cloth is the only labor. Much so-called enamel is merely enamel paint, has not the glossy surface of genuine porcelain enamel, and in a short time discolors, cracks and peels off into the provisions.

Bohn Syphon Refrigerators use the least ice and keep food absolutely fresh and uncontaminated because they are built with perfect insulation to keep out the heat and perfect air circulation to keep the inside dry and cool. A wet cloth hung in the provision chamber will dry more quickly than in the outside air. Remember, it is dampness which spoils food, melts your ice, and makes your refrigerator unsanitary.

The health of your entire household depends on the refrigerator you keep your milk and butter and meat and vegetables in. Therefore, you ought to know exactly how it is constructed.

Send for our illustrated Catalog telling what everyone should know about refrigerators, for their health's sake.

Sold by the Responsible Dealers

Use This Margin to Send for Catalog

NAME.....

ADDRESS.....

White Enamel Refrigerator Co.

ST. PAUL, MINN., U.S.A.

For Chauffeurs

AUTOMOBILE

Salesmen, Demonstrators, and Repairmen

EARN $25 TO $50 WEEKLY

Demand for these trained men can't be supplied. The work is pleasant and instructive, out-of-doors, and the hours short. You can prepare yourself for one of these positions in 10 weeks by a few hours' study each week. We teach you the entire subject by our simple course of instruction by mail. It is very interesting, practical and thoroughly efficient because it's personal. Ask our graduates who are earning $25 weekly or more in positions we obtained for them.

First Lesson Is Free

Write for it to-day. Let us prove our claims.

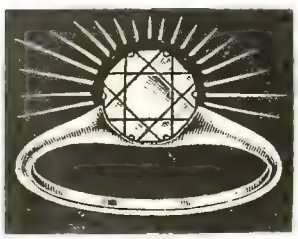
Empire Auto. Institute, 335 Empire Bldg. Rochester, N. Y.

The Original Automobile School

Chauffeurs and competent men furnished owners and garages.

MEXICAN DIAMONDS

Look As Well Wear As Well Cost 80% Less Than Genuine Diamonds



Experts can seldom distinguish between the two. Mexican Diamonds stand acid tests, are beautifully cut and polished, and guaranteed permanently brilliant. To prove our claims, we will send for FREE examination, by express, C. O. D., at **Special Introductory Prices,** No. 2500 Ladies' Tiffany Ring, ½-carat Mexican Diamond, $4.98. No. 2501, same, but 1-carat, $7.76. No. 2550, Gents' Round Belcher Ring, ½-carat, $6.94. No. 2551, same, but 1-carat, $11.36. All rings **solid gold.** State size and we will forward ring immediately with guarantee. 10 per cent discount if cash accompanies order. If not satisfactory, return in 3 days for refund.

Write today for **Free Illustrated Catalogue—it will interest you.**

MEXICAN DIAMOND IMPORTING CO.

Dept. E R 6, Las Cruces, New Mex.

Exclusive Controllers of the Mexican Diamond.

Poplin Four-in-Hands

The Ties Fifth Avenue Pays $1 for, I sell at

Two-for-a-Dollar

I know what men want in neckwear, for I have been studying the tie question for years—right here in Troy, where Collar styles are created.

I have succeeded in making Silk Poplin ties that will not show pin holes or unsightly creases like ordinary silk or satin ties. I sell these ties at Two-for-a-Dollar, with a guarantee of ***money back if they don't suit you.***

Made in the following shades: Red, Old Rose, White, Green, Grey, Black, Brown, Heliotrope, Light Blue, Medium Blue and Dark Blue. Two inches wide; 46 inches long; reversible (double the usual wear).

Pick out the shades you want and send me $1 for two ties. I will send by return mail the kind of neckwear you have been buying at twice the price I ask. My business is done direct with the consumer. I employ no salesmen nor agents. I manufacture myself or buy in large quantities at the manufacturer's price.

My interesting booklet covering my entire line of men's furnishing goods will be sent you free for postal request.

C. G. CLEMINSHAW State Bank Bldg. Troy, N. Y.

TAKE CARE

WHEN IRONING WRINKLES OUT OF THE CLOTHES NOT TO IRON WRINKLES INTO THE FACE!

THE IMPERIAL SELF-HEATING FLATIRON is always ready for an easy day's ironing, or for a few minutes' pressing. NO HEATED ROOM—NO STOVE, GAS, or ELECTRICITY needed. No tubes or wires to get in the way. Just a simple iron that heats itself with a small amount of alcohol or gasoline.

25,000 now in use—that tells the story.

Write for free booklet—it gives all details about the iron, and the address of your nearest agency.

The Imperial Brass Manufacturing Co., 455 Jefferson Street, Chicago

NOTE: Agents wanted everywhere. Easy sales—for women *want* the iron. $3,000 sold by one agent. Satisfaction guaranteed.

GENUINE NAVAJO **Ruby FREE**

To introduce our beautiful genuine Gems, sold direct from mine to customer at ½ to ¼ jewelers' prices, we will send free a genuine Navajo Ruby, uncut, and our beautiful 40 page Art Catalogue showing Gems in actual colors and sizes, for 4c to cover cost of mailing. Send today.

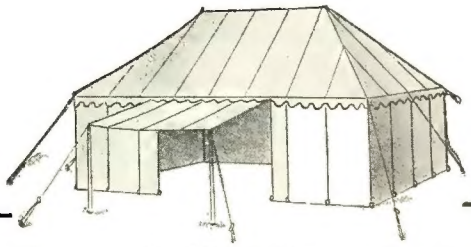
Francis E. Lester Co., Dept. ER6, Mesilla Park, N. M.

BARODA ANY STYLE DIAMONDS

Flash Like Genuine DIAMONDS.

at 1/40 the cost—IN SOLID GOLD RINGS

Stand acid test and expert examination. We guarantee them. **See them first—then pay. Special Offer**—14k Tiffany ring 1 ct. $5.08. Gents ring 1 ct. $6.08. 14k Stud 1 ct. $4.80. Sent C.O.D. for inspection. **Catalog FREE**, shows full line. Patent ring gauge included, 10c. The Baroda Co., Dept. A12, 838 N. State St., Chicago



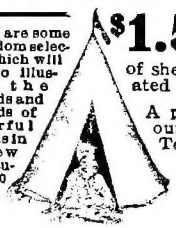
Channon's 1910 Camp Guide

SENT FREE

OUR new 1910 Catalogue brings to your home for selection the entire line of Tents and Canvas Specialties of the largest manufacturers of canvas goods in the country. It enables you to select in exact accordance with your ideas, as everything you could want is listed and it is the most elaborate and complete catalogue ever issued. It protects you absolutely against frauds which now exist in canvas goods. If you will study this catalogue you will never again buy a "market grade" tent (made only to sell) from the small stock of a small dealer. It will convince you *at once* of the great advantage of buying—not from the retailer or even the wholesaler—but from the *largest manufacturer* with *unequaled equipment*, whose stamp on any article means merit and perfection.

We save you money on any canvas article. You will be *surprised* at our quotations. For instance:

HERE are some random selections which will serve to illustrate the hundreds and hundreds of wonderful bargains in our new and beautiful 1910 catalogue.



$1.50 for this Indian Design, Wigwam, 4 ft. high, 5 ft. in diameter, made of sheeting and beautifully decorated with Indian designs.

A perfect 7 x 7 foot—eight (8) ounce Duck Wall Tent..... **$4.80**

A Family Compartment Tent (like top cut) 9 x 16½ ft. 10-ounce Double Filling Duck.. **$21.75**

This Catalogue, beside being an authority on buying, contains the most valuable collection of **Camp Secrets** ever published in any catalogue. More practical, sensible and reliable information than you will find in most expensive camp guides. There are chapters on everything pertaining to camp life, hunting, fishing, trapping, etc. An estimable book—a mine of information—and it costs you absolutely nothing.

This Catalog A Camp Guide is FREE

Just tear off the corner of this ad—write your name and address thereon—put it in an envelope and mail it to us. It will only take a few seconds and the book will be sent to you postpaid the same day we get your letter. *Stop reading.*

Tear off the Coupon now.

H. Channon Co. 32 Market St. Dept. 110 X Chicago

H. Channon Company.
Department 110 X
Market and Randolph Streets,
Chicago.
Ills.

TEAR ALONG THIS LINE

Gentlemen:—Kindly forward me free, postpaid, your new 1910 Catalogue and Camp Guide.

Name .....

Address .....

.....

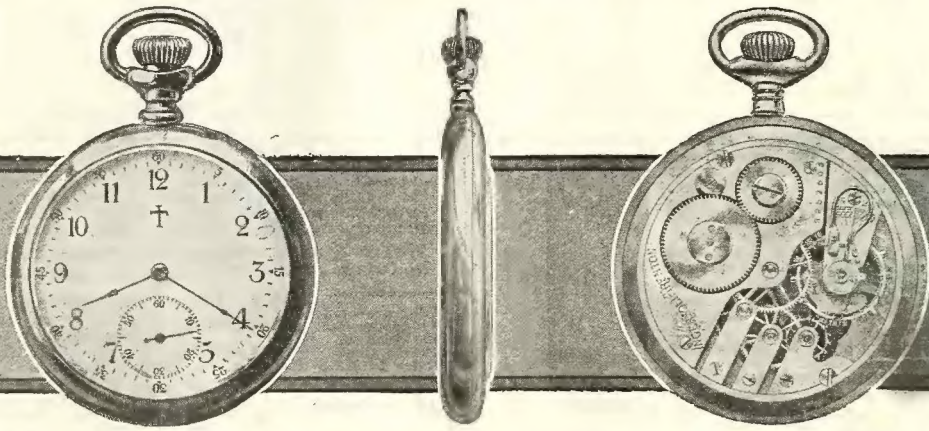
No letter necessary; just send the coupon.

Ingersoll-Trenton

The Standard Watch
As Time Goes On

Jeweled—tested—guaranteed. In beautiful 20-year gold-filled cases—NINE DOLLARS

Take an Ingersoll-Trenton in your hand; look at it critically; feel it; wind it. Then put it in your pocket; consult it; depend on it. It will not fail you. It is our business to make fine watches for people to whom the *exact time* is im-



portant. We are successful watchmakers. More than one-half of *all* the watches made in the United States come from our factories. Our watches are right *mechanically*. They keep time, and wear. Artistically they delight the eye. Into each watch we put experience, skill, conscience and ideals. Back of each watch are our name and guarantee. The worth of that name and guarantee is known to seventeen millions of people who have bought our watches and tested their faithfulness.

The Ingersoll-Trenton is our masterpiece. Into it has gone all our watch-knowledge and watch-inspiration. It is a living, ticking, timekeeping realization of our ideas as to what a good watch ought to be. The *whole watch* is completed under one roof. We make the works, fit them to our special cases; we regulate the time in our own factory before shipment and guarantee it to the buyer. No other watchmakers do *all* of these things. We also *fix the price*, and advertise it so that you cannot be overcharged.

The Ingersoll-Trenton is *sold* by 6,000 enterprising and responsible jewelers throughout the United States. It is *bought* by people of intelligence and thrift who want a *jeweled* watch for *nine dollars*—one that will "stand up" and tell time for twenty years and more.

Ask your jeweler to show you an Ingersoll-Trenton. It is one of the sights of the world of watchmaking. If he can't do it, ask him *why*. Then write and tell us his answer; and *we* will write both you and him and see if we cannot arrange to have the two of you get together in this most important watch transaction. But first ask to *see* the Ingersoll-Trenton; put it up to your *jeweler*. It is his special business to give you the best *watch* at the best *price*. See that he *does*.
Here is the full schedule of Ingersoll-Trenton prices:

$5 in solid nickel case — **$7 in 10-year gold-filled case** — **$9 in 20-year gold-filled case**

The famous Ingersoll *Dollar* Watch continues to be the world's best *seller*. It is the watch for the masses. It originally set the pattern and the pace for all low-priced watches that are worth while and is *still ahead*. It is sold by 60,000 dealers.

We have published a little book, bound in an embossed cover. It contains *five facts* worth *five dollars* to any one who is ever going to buy another watch. The title of this book is "*How to Judge a Watch.*" What is your address? We would like to send you a copy with our compliments.

Robt. H. Ingersoll & Bro., 62 Frankel Bldg., New York City

Fairy Soap

Plenty of second grade soap masquerades under strong perfume and dyes, and sells at a fancy price because it *looks* and *smells* well.

Fairy Soap is white—undyed—made from edible fats. It costs but 5c a cake, because it contains no needlessly expensive perfume.

When you want *all* soap and no sham, order Fairy Soap—the handy, floating, oval cake.

THE N. K. FAIRBANK COMPANY,
CHICAGO.

"Have You a Little Fairy in Your Home?"

The Powder that Shortens the Shave

IF men knew how to lather, they would shave with more comfort.

The action of lather on the beard is a double one. The oily exudation which covers each hair is removed by the soap. This allows the water to get to the hair, moistening and softening it.

A certain amount of friction aids the lather in the performance of its duty. Too much friction irritates the skin and causes that smarting for which soap or razor is often blamed.

It follows that the method of lathering which most thoroughly penetrates the oil-covered hairs, with the least amount of rubbing, is not only the quickest manner of shaving, but the most comfortable.

As mixing the lather in a cup and then spreading it over the face does not properly soften the beard, many shavers resort to that "mussy" habit of rubbing in the lather with the fingers. This rubbing in not only means skin irritation, but a waste of time, and is entirely unnecessary.

So it is logical that the proper place to mix the lather is on the face, where every motion of the brush not only works up the lather, but also works it in. Colgate's Rapid-Shave Powder makes this possible.

It makes as perfect a lather as Colgate's famous Shaving Stick and makes it by a quicker, neater method. The fine particles of powder shaken on the wet brush are taken up at once by the water. No soapy paste forms under the lather to clog the pores of the skin or the razor blade.

For cleanliness, convenience and comfort, Rapid-Shave Powder sets a new standard for sanitary shaving.

Chemists' analyses prove its antiseptic effect. 150 to 200 shaves in each can.

Trial box sent for 4c.

COLGATE & CO., Est. 1806. Dept. 55, 55 John St., New York
Canadian Dept., Coristine Bldg., Montreal. *Makers of Cashmere Bouquet Soap*

COLGATE'S
RAPID-SHAVE POWDER
TRADE MARK